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Influence of the War on Balance-sheets*

By Robert H. Montgomery

Most balance-sheets of recent date differ radically from those published prior to the commencement of the world war. Changes worthy of comment appear not only in the surplus account but particularly in such items as plant, inventories and reserves. Many of the dubious items on the asset side, such as deferred charges and capitalized expenditures of doubtful permanent value, have disappeared. Will this desirable state of affairs continue?

The noticeable change in balance-sheets due to war conditions commenced in 1916. At the end of 1914 depression was quite general, values were down, federal tax rates were low and there was little inclination on the part of business men to make any changes in their balance-sheets other than those which had periodically been made during prior years.

At the end of the year 1915 no substantial change had taken place. There had, however, been some recovery in business and large orders were being placed for war purchases, chiefly emanating from foreign governments. Federal tax rates continued low.

Throughout 1916 business continued to improve and with the enactment of the federal revenue law of September 8, 1916, effective as of January 1, 1916, which carried with it increased federal taxes, business men commenced to scrutinize their balance-sheets with an interest which had no precedent and was unique in thoroughness.

On March 3, 1917, the first federal excess profits tax law was passed. Consequently from the beginning of the year 1917 the majority of business men have constantly had in mind the effect

* An address delivered at the annual convention of the New York State Bankers' Association at Albany, New York, June 12, 1919.

of federal taxes on profits. As almost every item of a balance-sheet affects directly or indirectly the computation of taxes, it is obvious that the greatest single influence which has ever been felt on balance-sheets is the federal excess or war profits tax.

Generally speaking, balance-sheets are accurate when tax rates are high and profits are substantial. It cannot be said that the average balance-sheet is accurate when tax rates are low or when tax rates are high and profits are not substantial. I am referring now to the balance-sheet as it is made up without supervision or certification from an outside source. The tendency to fool one's self has been so strong and so general that the ordinary balance-sheet in the pre-war period, when subjected to investigation by a disinterested third person, required drastic treatment.

Except in the comparatively few cases where special reasons existed for understating values or understating profits, most business men were unwilling to provide sufficient depreciation; they were unwilling to cut down inventory values; and they were reluctant to provide sufficient reserves against accounts receivable. They insisted on carrying "souvenirs" as perfectly good assets, and they borrowed large sums of money on the strength of such souvenirs. This tendency was so general that most bankers in scrutinizing balance-sheets mentally calculated additional reserves against the assets mentioned. The result was that the conservative business man who had provided sufficient reserves suffered the penalty of having, in effect, his actual quick assets reduced because the non-conservative man had neglected to provide sufficient reserves.

The attitude of the treasury department in the matter of federal taxation during the years 1909 to 1917 was not helpful from the point of view of conservative balance-sheets. The agents of the department were constantly disallowing depreciation and amortization charges; allowances for obsolescence were stricken out, and, in general, business men were encouraged to carry their assets on their books at inflated values.

Bankers' insistence upon accurate balance-sheets, supplemented by the action of another governmental agency, viz., the federal reserve board, offset the influence of the treasury department and worked for a constantly increasing improvement in the trustworthiness of balance-sheets. Progress, however, was fairly slow until in the year 1917, with its enormous federal taxes, there was

brought about what might be called a revolution in balance-sheets. For many years bankers and accountants had spent a vast amount of time in analyzing balance-sheets. Item after item on the assets side was dissected and inquiries were made as to the actual worth of book figures. The liability side was given less attention, but there was the constant fear that all liabilities were not shown.

At the end of the year 1917, without the intervention of bankers or accountants, great numbers of balance-sheets underwent tremendous changes. The assets side was scrutinized by the boss himself before the books were closed and, if there was the slightest indication of overvaluation, ruthless cuts were made in the book figures. Plant accounts were written down to the lowest possible point by liberal depreciation charges and by reductions in amortization or obsolescence. Inventories of raw materials and finished products were reduced to a cash basis. The most liberal reserves were provided for possible losses in accounts receivable. All possible liabilities were set up in the books. This same policy was continued throughout 1918, so that the average balance-sheet of the most recent date obtainable, speaking from the point of view of a lender of money or from that of a public accountant, is a joy to behold. I refer, of course, to those cases in which there were profits in 1917 and 1918 subject to the higher rates of federal taxes. Where there were no such profits the procedure outlined was not followed, nor could it be expected that it would be followed.

As most business enterprises were successful during 1917 and 1918, or both, the pruning process was almost general. In my comments, therefore, I will confine myself to what I might call those balance-sheets which underwent the heroic treatment mentioned. While the pruning of balance-sheet operations was drastic, yet it is a fact which must not be ignored that the inventory figures which remain after all deductions and reserves have been taken into account are far above pre-war values and that, if pre-war prices were to prevail again within the near future, it is questionable whether our apparently favorable balance-sheets would be able to stand the cuts which the application of pre-war prices would require. I think, however, that the chances of ever getting back to pre-war prices are too remote to justify any preparation therefor. The purchasing price of a dollar today is so much less than it was a few years ago that it would require a violent

upheaval, not now in sight, even to approach former conditions. We have a tremendous inflation in our own currency with a far greater inflation in the currency of other countries. It is impossible that the return to conditions of non-inflation should be rapid. Labor costs, which are the highest factor in many industries, are going down slowly, if at all. In many industries where wages should be reduced, pressure against reduction is hard to overcome. This pressure comes not only from labor and the representatives of labor, but from many other sources.

A lender of money cannot ignore the radical tendencies not only of labor reformers but of parlor socialists as well. The latter are far more numerous than many realize. They are found as mayors of our largest cities, in the pulpit and among borrowers of money. We find bankers and lawyers who have made large fortunes, which are safely invested, among our leading reformers and informers. As General Wood recently said, "Strange doctrines are preached in high places." It is curious how many wealthy people, who become inoculated with the germ which sanctions the reduction of the fruits of labor of others, tenaciously retain their own wealth. It is too bad that certain rich men do not borrow money. I would like to be the banker to whom they applied for loans.

Balance-sheets are affected by sentiment and by many intangible elements. Strikes, bombs and threats may turn a good balance-sheet into an unsatisfactory one.

It is of great importance that the adjusted balance-sheet of the present day be continued. Over long periods of years and in many thousands of concerns it has been demonstrated that the capitalization of such items as advertising, etc., has been a mistake. It has been found that very liberal depreciation, writing down of inventories, etc., has led to business success. The tendency of the treasury department to disallow such items should be criticised. I will admit that what is known as correct accounting may lead to overcapitalization and inflated profits. In deciding whether an expenditure should be capitalized or charged as an expense it is better to be conservative than accurate.

If bankers will in future years require balance-sheets to be made up on the same basis as the average balance-sheet at the end of 1918, losses due to bad loans will diminish. I insist, however, that much that was commendable in the house-cleaning as applied

to balance-sheets was due to high taxation rather than to a change in sentiment. But when the devil was not sick he was not a monk.

When tax rates go down (if they ever do) or if profits decline (which they will) the recent liberal and conservative methods may not continue. For the sake of the borrower himself, bankers should insist on a continuance of the methods of the last few years. If there is a gradual decline in prices, it can be taken care of without any difficulty. Wherever there is a drastic decline in prices, it should be immediately applied to the balance-sheet, no matter who is hurt.

In the great majority of cases balance-sheets are still far from being a true picture of financial conditions. There should be some basis of comparison between concerns in the same industry, buying the same raw materials and producing the same articles. As a member of the price fixing committee in Washington, I was amazed at the tremendous differences which existed in this respect. Even when costs of production were somewhat similar, balance-sheet valuations were widely apart. This applied not only to a few industries, but to most industries. We were told by the leaders of various industries that a certain amount of capitalization could be counted upon in relation to a given unit of production or capacity. But few concerns reflected any such uniform or standardized figures on their balance-sheets. If price fixing had continued for any great period of time, it is altogether likely that there would have been a radical revision of balance-sheet valuations.

I refer only to valuations of fixed assets, such as plant, machinery, etc. This would have been influenced by the fact that we were endeavoring to fix uniform prices which would yield a satisfactory profit or return on investment to the average concern in a given line of business. We could not legislate for the high cost concern nor the weak sister. And we were willing that the low cost, efficient producer should realize a higher return on his capital than the high cost inefficient producer.

One of the great difficulties in price fixing was the fact that concerns in the same industry rarely built their plants at the same time. Some built when materials and labor costs were low. Others built when costs were high. Some wrote their plants down to $1.00. Others did not even charge off ordinary depreciation.

It is easy to imagine the difficulties confronting those of us who were attempting to give to our most important industries a fair return on their investment. Here is a factor of considerable importance. The plant which was built at war prices (which still continue) is at a disadvantage as compared with a plant built at pre-war prices and over-depreciated as well.

The attention of the lender of money is not always directed to the basis of plant valuations. Theoretically money is not lent on fixed assets. This theory, however, contains a great fallacy, because it would be far better business to lend money to a concern which had a plant of good earning capacity, even though its liabilities were 100 per cent. of its quick assets, than to a concern whose liabilities apparently only amounted to 50 per cent. of its quick assets, which had a poor plant and was not making good money. There is a direct connection between plant assets and valuations and the profit and loss account to which bankers do not always give enough consideration.

There has been some tendency to treat accrued federal taxes as a reserve or as a possible liability, rather than as an actual debt to be paid in cash on fixed dates. In many cases the amount payable is a rough guess. In some cases the amount is entirely omitted from the balance-sheet. Considerable pressure has been exerted upon public accountants to omit the amount payable and merely mention the fact of the omission. The point is not even debatable. If a profit has been earned a considerable part of it must be set aside for federal taxes. In the state of New York the amount payable under the new law is not inconsiderable. It is not difficult to ascertain the amount due. No balance-sheet should be accepted by a banker unless the tax liability is set up, and if there is any doubt about the amount the estimate should be ample.

Some bad advice has been given in regard to taxes. I know of balance-sheets in cases in which the taxes which will have to be paid will be ten times the amounts shown on the balance-sheets. The amounts shown are those which uninformed persons think can be put over the treasury department. There will be sad awakenings in many, many cases. If I were a banker I would insist on some verification of the item of tax liability.

I do not like the term balance-sheet. The term itself is ill-chosen and I am sure that it at least is partly responsible for the

curse of balancing. The trouble with most balance-sheets is that they balance. I have no possible objection to a bookkeeper's being able to balance his books. In fact I would not employ a bookkeeper who did not understand the gentle art of balancing, just as I insist that my thirteen-year-old boy must study Latin and algebra. Balancing and Latin are forgivable as elements of a liberal education, but they should not be made offensive. Instead of a balance-sheet (which always balances) bankers should call for a statement of assets and liabilities and if it balances it should be returned for correction. Very frequently balance-sheets upon which large amounts of money are lent are exactly what the name implies, that is, certain figures are extracted from the debit and credit sides of ledgers and in turn are transferred to sheets of paper without any intelligent thought being given to the relationship of the figures to the things which the figures are supposed to represent. Even if a bookkeeper should at the time of transferring the figures realize that some of his figures did not at all represent the things themselves, what I call the curse of balancing would prevent a correction. He would be afraid to make the correction because if he did so the balance-sheet would not balance. The ideal balance-sheet is one which does not balance because in such case no one fears to decrease an asset if it is overvalued or hesitates to increase a liability item or insert an additional liability if it is found that all are not on the books.

Balancing has so overawed bankers and business men that many of them would as soon remove an ancient land-mark or make light of sacred things as strike out one figure on a balance-sheet and insert another. The chief use of a statement which balances is the smug satisfaction it affords to the bookkeeper. It does not signify accurate or trustworthy accounts. Many of the flagrantly false accounts which I have seen were in perfect balance and so far as looks were concerned could not have been improved. I can't emphasize too strongly the importance of getting at the substance of a balance-sheet and subordinating its form. I do not belittle the importance of having a balance-sheet in proper form. I have spent many weary hours in recasting balance-sheets so that they could be readily understood. In my opinion the simplest and best form is that which shows quick assets first, grouped according to convertibility and availability, with the totals shown, then followed by fixed and other assets in

the order of their convertibility. On the liability side I would show the liabilities in the same order, that is in the order in which they must be paid. I would place bond or long term debts next, and last of all I would show the net worth carried out in one aggregate. Some balance-sheets which show capital stock as the first item of liability and surplus as the last item of liability are not only misleading (because capital stock and surplus are not liabilities) but they require mental gymnastics in order to get at the actual net worth of the concern.

If the borrower has not put his own house in order, there has never been a better chance for the banker to do strong arm work on balance-sheets than at the present time. They should be made to reflect actual conditions and conservative values and there should be enough uniformity about the balance-sheets of a given industry to make comparisons possible and profitable. Every bank which lends money should classify its balance-sheets and not consider that each one should be expected to tell its own story. Management is just as important as capital and a balance-sheet can and should reflect management. The war balance-sheet may show large net worth but it does not necessarily reflect good management, because large profits were made by the majority of concerns. Anyone could make money in most industries during war times because the demand exceeded the supply. The profits so made have been used to clean up balance-sheets. The important thing now is to prevent balance-sheets from getting into their former condition. As heretofore stated the only concerns which really cleaned house were those which were profitable from 1916 to 1918. As the tax problem was the incentive to clean house, those concerns which were not subject to high rates of taxation should have their balance-sheets more carefully scrutinized than those in the more fortunate class.

The pressure on a borrower to furnish a good statement comes not only from his own needs, but frequently from note-brokers and bankers. High tax rates, growing out of war conditions, have inclined many concerns to make up statements which can safely be trusted. Obviously, such statements are the safest ones on which to lend money. The same acid tests should be applied to all balance-sheets, and then it will be found that the influence of the war upon balance-sheets has been helpful alike to the borrower and to the lender.

Growing Responsibilities of the Public Accountant*

By J. Porter Joplin

Some four years ago I had the pleasure of appearing before you in this city and at that time I was gratified to be able to congratulate you upon the event—the first meeting of your tri-state gathering. I feel that now I can congratulate you upon the continuation of these meetings and assure you of my appreciation of being invited to attend on this occasion. At the meeting of 1915 I gave a short address in which, among other things, I referred to the possible necessity of a change in the organization to which at that time we all belonged, so as to bring about a greater uniformity in the qualifications for membership in our national body and to invest a control therein which would insure fair standards of efficiency in its members and a general improvement in the practice of the profession.

Since that time changes have been brought about, with the result that we now have the American Institute of Accountants in which we are all individual members and I feel that it can be said without danger of contradiction that much has been accomplished in the way of advancement of the profession of accountancy through its activities which would have been impossible under the old organization, which, however useful it may have been in the past, was limited in its scope because of the very nature of its organization.

I refer to this change in our national body so as to introduce the subject selected for today, and I trust that you will bear with me if I seem to touch upon matters which you consider trite, for on occasion it may be necessary to refresh our memory in certain particulars.

It may be well to make it clear at the outset that there is probably little doubt that the accountant has fully recognized his responsibilities and—with a few exceptions here and there, where members of the accountancy profession have sacrificed their sense of duty to their desire for increased business and the revenue created thereby—has endeavored to live up to his understanding

* An address before the tri-state meeting of Delaware, Maryland and Virginia accountants at Baltimore, Maryland, June 25, 1919.

of these responsibilities. Nevertheless, as he is beset by so many quagmires and pitfalls on all sides it may not be amiss to emphasize the fact that these responsibilities are vital and their observance of extreme importance in his practice. A discussion of the matters related thereto may serve as an encouragement to him in the conduct of his profession.

While the client's affairs should receive full consideration and careful analysis so that they may be presented in such form as to procure for him all the benefit to which he is entitled, it is most essential at all times to remember that his interests are not the only ones to be considered. This is particularly so at the present time, inasmuch as the revenue acts have made the government to all intents and purposes a partner in the affairs of each citizen as well as in each corporation or association of citizens. In the practice of our profession I am sure that there is not one of us who when preparing a statement of partnership interests would not be most punctilious in seeing that in every particular a fair division of profits is made. It would seem that the same attitude should be maintained in the preparation of figures to be used in making income tax returns—and in most cases this is the attitude of the accountant. However, there have been cases where accountants have sent out literature stating that a saving could be made by the client through the employment of their services, giving the impression that their services were to be employed for that purpose only. Undoubtedly in many instances (perhaps in most) legitimate savings have been made by the taxpayer through the employment of the accountant; but primarily the accountant's activities are to ascertain the facts regarding the affairs of the institution he is investigating; and in general he is not swayed by a desire or an intent to reduce the figure upon which the tax is to be based except in legitimate and well recognized ways.

I do not intend to infer that one should not avail one's self of all proper advantages to the client, for the treasury department is as desirous as the accountant that the returns should be fair, and there are times when the client's view may well be accepted on a doubtful point; but in no circumstances should an accountant subscribe to a statement of conditions which is doubtful of standing the test of close investigation, and his attitude to his client should clearly show his position on this question.

The cordial relations which have grown up and now exist between the profession of accountancy and the government through its several departments, the army, the navy and the treasury, are an indication of the growth of the profession and it is quite obvious that a well recognized position in the community has been attained. This makes it necessary for members of the profession at all times to be on the alert and ethically sound so as to measure up to the requirements which this position creates.

Perhaps I may be permitted to revert to the time of our entrance into the great war. From the very first, members of our profession were extremely active in helping to promote the activities which later proved so essential to the final victory. In the construction of the cantonments, the navy matters and in the treasury department were to be found men, members of this profession, doing all that lay in their power to forward the interests of the different departments. Many of these men gave their services without remuneration and all of them made great sacrifices in assuming the duties which they performed so creditably. And now that the war is won and we are back in civil life, it is more than ever necessary that we live up to the high standing attained which these activities helped to establish.

This profession has now a chance for the performance of great good, and, confident of the esteem of men high up in the councils of our nation, its members are called upon to grasp their opportunities and go forward in national affairs, building up and carrying on with the intent of fulfilling a destiny for which they are undoubtedly qualified—a destiny which will class them among those other older professions which have so nobly stood the test of time.

It is important that greater attention be paid to academic matters. The young men whom we employ in our offices should have received an education which will ensure a foundation upon which to build. Much will depend upon the character and degree of education of the young men who will be the practitioners of this profession in the future, and it is the duty of each accountant to see to it that his employees are properly equipped. Should the junior assistant be so unfortunate as to have been deprived of the advantage of a high school education he should be encouraged to make up his studies by extra effort through such sources as are available for this purpose. In addition to this fundamental

necessity, there should be close observation to make sure that the young man in the office is imbued with the right ethical thought in his work. This ethical viewpoint should prevail throughout every accountant's office, as it is of prime importance to the profession in the fulfillment of its proper functions.

The accountant of today must of necessity be more or less of a student. That a careful and prolonged perusal of the revenue acts of 1916-1917 and 1918 is an essential part of his study goes without saying. To this may be added the necessity of a thoughtful and even meticulous consideration of the regulations and decisions of the treasury department issued through the commissioner of internal revenue.

Perhaps the past year has been the most strenuous of any in the experience of some of us, and we are frequently told by our assistants that pressure of work with the resultant lack of time has prevented them from being as studious as would clearly seem desirable. However this may be—and my sympathy in many cases is with the assistant—it is absolutely necessary for the welfare and advancement of the profession that the assistants in our offices prepare themselves for higher duties, for the future is theirs. The demands of that future will be for increased attainments on their part and a further increased scope of the profession. It is our duty to do all in our power to assist the men growing up in the profession so as to prepare them to become worthy exponents of the practice of accountancy.

It must be patent to all of us that much more is expected of the accountant as the years roll by and business and national affairs take on new forms which bring us face to face with more intricate problems.

When called upon for consultation with clients and their various advisors in other matters, we invariably find that much is expected of us in the way of information, and unless we are supplied with a fund upon which to draw for the occasion we may be discredited, although perhaps unjustly. A fair allowance of time for preparation in looking up matters which are to be discussed is only right, but the better we are prepared to deal with such questions as are commonly accredited to the accountancy profession as coming within its activities, the better we can measure up to the standards we have set, even though this cannot be accomplished without diligent effort.

On some occasions we must face the difficult decision as to whether some man employed in our office is capable of taking on higher duties and responsibilities. There may be limitations in his character or in his fundamental education; and it may be desirable for the sake of both the individual and the profession that the matter be taken up with him fearlessly so that his future may not be a disappointment, and the profession may not suffer from his lack of fitness when he becomes a practitioner.

Every man who has some knowledge of figures and has had experience in an accountant's office is not necessarily an embryo practitioner, and the sooner he faces the fact the better for him and his future welfare. Were he to apply himself in other directions he might reasonably expect to make a success of his life, whereas his efforts may be utterly thrown away in following the accountancy profession for which he is entirely unfitted.

Each junior accountant in our offices should be encouraged to prepare himself for the position of senior accountant and, if he is of the material necessary for advancement to such position, our efforts should invariably be toward helping him to consummate this progress. In the same manner senior accountants should be helped to prepare themselves to qualify for membership in the American Institute of Accountants both for their own sake and for the good of the profession.

There are far too few accountants in the country today to care for the business demands, and if we are to live up to our opportunities we must prepare more accountants so that they may qualify to swell the ranks of the profession with credit both to itself and to them. I must again refer to the desirability of inculcating in our office staff a stronge ethical attitude in all matters connected with practice, for without doubt, if the practitioners of the future have a sound education and a good accounting training in addition to being ethical in their practice, they will reflect credit upon the profession.

Numbers will be of no avail without proper qualifications, and as the demand is for more and again more accountants, it is our bounden duty to do all we can to see that the qualifications are of such nature as to prevent discredit to the profession, the standards of which must be maintained. I am constrained to speak strongly on this subject as there have come under my observation many instances in which those practising accountancy seem

to care little or nothing for the ethical side of the question, forgetting that as a part of the professional world we must have a strong ethical strain in our make-up. This in my opinion is quite as essential as brilliant accounting ability.

It is within the profession that the highest ideals should obtain, and the earlier the young men who are expecting to make accountancy their life vocation are imbued with these ideals the better for the future. On occasion it has been noticed that men who have come out of the commercial world to take up the practice of accountancy have not given as much attention to the ethical side of the practice as could be wished. Perhaps this will hold good in other directions, as some of our members who have been trained within our ranks have likewise been derelict in this matter. Therefore it would seem most desirable that the young man growing up in the profession should be helped to acquire the grounding which will fit him to be classed with the best element in the community both from the viewpoint of ability and from that of true professional attainment.

As previously stated, it will be expected that the members of the American Institute of Accountants will be a strong support to the government in giving their best efforts to create the right impression when assisting in making returns to the internal revenue bureau under the revenue acts. In our practice we shall be enabled to build up for ourselves a name which will be of great fame in the business world.

I will only touch upon that part of our practice which calls for the certifying of statements for the purpose of credit, as that phase has been repeatedly presented for our attention, and I am sure that we are all of one accord in our attitude on the balance-sheet audit and the entailed responsibilities.

A condensed balance-sheet should have the most careful consideration in preparation and at no time should we be forced into signing any balance-sheet without being allowed the necessary time to ensure its correct presentation in conformity with our findings.

Who among us has not faced difficulties arising from the lack of time to enable him to complete his mission so as to conform to the demands for a report at a given time and who among us has not had to take his stand on such occasions? The client's interest may be jeopardized should there be delay in the presen-

tation of the report desired, but never may we condense a balance-sheet to an extent which will not conform with the best practice.

We have as a guide a reprint from the *Federal Reserve Bulletin,* "Approved methods for the preparation of balance-sheet statements" which is a most valuable document to which we can at all times turn when wishing to assure ourselves of our position. And I am sure that no client will gainsay us or disapprove of our attitude when presented with this reprint in corroboration of our position.

The responsibilities of the accountant to the client are doubtless well recognized by the practitioner and it would be impossible in the brief time at our disposal on this occasion to enlarge upon them. They seem to be obvious. It might not be out of place, however, to emphasize the necessity of observing the strictest confidence in all matters pertaining to the client's affairs. General practice will call not only for this, but for many other related things.

It is not my purpose to go into that phase of the question which would include the accountant's relations to the client, but more particularly to bring out other responsibilities which must be as fully recognized. Therefore in summing up the matter I would point out the following as being prime essentials in our practice and would bespeak of you an earnest attention thereto:

Our duty to the government;

Our duty to our employees;

Our duty to the profession.

If I have in any way clarified the situation in relation to the foregoing summary I have served my mission and I hope that I have also voiced a word that may be beneficial to the profession.

Certain standards have been set which will demand much of accountants and to live up to these standards will require watchfulness on the part of the members of the American Institute of Accountants.

Insurance Expense Accounting

By W. H. Draughon

This article describes:

I. A convenient insurance record which shows:
   (1) The total amount of insurance in force at all times and how distributed;
   (2) The correct amount of premium to be charged to expense each month on each policy and the total on all policies;
   (3) The exact amount of unexpired insurance, at any time, on each policy and in total.

II. A form for the correct departmental distribution of all insurance expense for the current month.

In most accounting systems expenditures for insurance are not given due consideration. A common practice is to charge these expenditures directly to operating expenses. At the close of the fiscal year the policies in force are dug up and the amount of unearned premiums is computed and credited back to operating expenses and carried forward on the balance-sheet into the next period as an asset in the form of prepaid expenses.

This practice might answer if the management were content to wait until the end of the year for all information appertaining to the operation and progress of the business; but modern methods demand current information and modern accounting seeks to satisfy this demand. To that end, all operating expenses should be brought down to a monthly basis so that each month's operation will be charged only with the expense consumed during that month.

Even in well-planned, modern offices, the monthly insurance charge is usually ascertained by estimation—for instance, one-twelfth of the estimated total for the year. There would be no criticism of this practice if laborious details were required in order to obtain the correct, actual, monthly figures; but the purpose of this article is to show how easy it is to find the exact amount of monthly insurance charges and, at the same time, present at a glance the other valuable information mentioned above.

The table on pages 18 and 19 shows the form of record in which each fire insurance policy is entered. Naturally, the best time to start the record would be the beginning of the fiscal year; but it may be started at any time, preferably at the first of a month. Bear in mind that columns 15 to 26 must be headed with months corresponding to the fiscal year, no matter in what month the record may be started. That is, column 15 will be the first month of the fiscal year and column 26 the last.

Open the record as follows. Get out all fire insurance policies still in force. Enter the oldest one on the first line. In columns 1 to 13 (omitting columns 5 and 6, which are to be left blank) insert the data called for, all of which is obtained from the policy itself. In column 12 show the full amount of premium as shown in the policy, regardless of the amount of premium already consumed. In column 13 show the term, in months, covered by that premium. Column 12 divided by column 13 will give the amount of monthly premium on that policy. Note the month of expiration, as shown in column 4, and insert the amount of monthly premium in each of the proper monthly columns, beginning with column 15 (if the record is started at the beginning of the fiscal year) and extending up to the month of expiration. The amount in the column for the month of expiration, however, will be a fraction of the monthly premium, unless the policy expires on the last day of the month. For instance, suppose the policy expires May 14th. The premium in the May column will be 14/31 of the monthly premium. In column 27 enter total of columns 15 to 26. In column 28 write total amount of premiums running over into succeeding periods, if any. This will be the amount of unexpired insurance on that policy at the close of the current fiscal year. In column 14 write the sum of columns 27 and 28. This is the amount of prepaid insurance on this policy at the beginning of the current fiscal year. Column 27 plus column 28 must always equal column 14, in totals as well as in individual entries. In like manner enter each policy.

Having entered all policies in force at the time of beginning the record, total column 14. This is the amount of prepaid insurance that the ledger account must show (assuming, for this example, that fire insurance is the only kind of insurance carried). Proper entry should be made setting up this asset.

FIRE INSURANCE RECORD

Date of policy	Name of Company	No. of policy	Date of expiration	Termination entries (In red)		Amount of Policy (in Dollars only)					Memoranda	
						Total amount	Distribution of Policy					
				Date	How		Building	Equipment	Finished product	Raw material	Amt. of prem.	Term (mos.)
1	2	3	4	5	6	7	8	9	10	11	12	13
2/ 1/17	Ætna	460718	2/ 1/19	2/ 1/19	Exp.	7,000	1,000	1,000	4,000	1,000	136.00	24
10/ 5/18	Hartford	36819	10/ 5/20	3/10/19	Can.	6,000	1,000	1,000	3,000	1,000	116.00	24
11/ 1/18	Glens Falls	46832	11/ 1/20			6,000	1,000	2,000	2,000	1,000	116.00	24
12/ 3/18	American N. J	64896	12/ 3/19			7,000	2,000	2,000	2,000	1,000	66.00	12
	Totals, Jan. 1, 1919					26,000	5,000	6,000	11,000	4,000		
1/15/19	Det. Fire and Marine	648706	1/15/20			4,000			2,000	2,000	40.00	
	Totals, Jan. 31, 1919					30,000	5,000	6,000	13,000	6,000		
2/ 1/17	Ætna	460718	2/ 1/19	2/ 1/19	Exp.	7,000	1,000	1,000	4,000	1,000		
	Totals, Feb. 28, 1919					23,000	4,000	5,000	9,000	5,000		
10/ 5/18	Hartford	36819	10/ 5/20	3/10/19	Can.	6,000	1,000	1,000	3,000	1,000		
	Totals, March 31, 1919					17,000	3,000	4,000	6,000	4,000		

FIRE INSURANCE RECORD—Continued.

Name of Company	"Prepaid insurance" dr.	Monthly Premium Charges—Debits to Expense Credits to "Prepaid Insurance" Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	"Prepaid insurance" bal. at end of year
2	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Ætna ……	5.67	5.67	……	……	……	……	……	……	……	……	……	……	……	5.67	……
Hartford ……	102 30	4.83	4.83	4.84	4.83	4.83	4.84	4.83	4.83	4.84	4.83	4.83	4.84	58.00	44.30
Glens Falls ……	106.49	4.83	4.84	4.83	4.83	4.84	4.83	4.83	4.84	4.83	4.83	4.84	4.83	58.00	48.49
American N. J. ……	61.05	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	.55	61.05	……
Totals, Jan 1, 1919…	275.51	20.83	15.17	15.17	15.16	15.17	15.17	15.16	15.17	15.17	15.16	15.17	10.22	182.72	92.79
Det. Fire & Marine……	40.00	1.66	3.33	3.33	3.34	3.33	3.33	3.34	3.33	3.34	3.33	3.33	3.34	38.33	1.67
Totals, Jan. 31, 1919..	315.51	22.49	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.51	18.49	18.50	13.56	221.05	94.46
Ætna ……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……
Totals, Feb. 28, 1919.	315.51	……	18.50	……	……	……	……	……	……	……	……	……	……	……	……
Hartford ……	69.00	……	……	18.80	4.83	4.83	4.84	4.83	4.83	4.84	4.83	4.83	4.84	24.70	44.30
Totals, Mar. 31, 1919.	246.51	……	……	37.30	13.67	13.67	13.66	13.67	13.67	13.67	13.66	13.67	8.72	196.35	50.16

As new policies are taken out, treat these purchases in the same manner as any other purchase, charging them to prepaid insurance, and enter each new policy in the record in the same manner as above described. When entering new policies, the full amount of premium as charged by the agency will go in column 14.

When a policy is terminated by cancellation, credit prepaid insurance with the amount of returned premium as per credit memo. from the agency. Enter the cancellation on the first vacant line in the record. Use red ink all the way across the record, copying, in columns 1 to 11, the data appearing in those columns in the original entry of the policy. In column 5 show date of termination. In column 6 write the abbreviation "can." to show that it was terminated by cancellation. In column 14 enter the amount of returned premium credited by the agency (in red, of course). In column 28 enter the same amount shown in that column in the original entry. In column 27, enter the difference between columns 14 and 28. If column 28 should happen to be larger than column 14, the difference in column 27 must be in black (all other entries being in red). In all cases, the algebraic sum of columns 27 and 28 must equal column 14, remembering that figures of dissimilar color subtract instead of adding. Beginning with column 26, and working backward across the record toward the current month, enter, in red, the full monthly premium (as shown in original entry) in each of the intervening columns. In the column for the current month enter such an amount (in black or in red as may be required) as will make the algebraic sum of the amounts in the monthly columns equal to the amount in column 27. In cancellation entries the amount in the column for the current month will always be in black if the policy is cancelled at "short term rates," signifying an extra charge to make up for insufficient charges for prior months. If cancelled "pro rata," the entry will be in red, like the others. In columns 5 and 6, on the line of original entry of the policy, enter, in red, the same data contained in those columns in the cancellation entry beneath.

When a policy terminates by expiration, make an entry in red, as described in the preceding paragraph, except that no entries will be made in columns beyond column 11. Also make termina-

tion notation in columns 5 and 6 on the line of original entry of the policy, using the abbreviation "exp." in column 6 here, as well as in the cancellation entry.

At the end of each month, if any entries have been made in the record during the month (cancellations included), total all money columns (except column 12), remembering that red figures subtract. Do not rule beneath any total except in the monthly premium column for the month just closed. The total in that column is the correct amount of premium to be charged into expense for the month and credited to prepaid insurance, and cut-off rules may be placed beneath this total, as no more entries will be made in that column. Before making any entry, however, of this charge to expense, the accuracy of all totals in the record should be proven thus: the sum of all monthly columns (closed columns included) must equal column 27, and column 27 plus column 28 must equal column 14. If no entries have been made in the record during the month all totals are already correctly shown.

If no departmental distribution of expense is made in the system, journal entry for the month's insurance expense may be made directly from the insurance record; but if this distribution is desired, the amount of the month's insurance charge is transferred to the insurance distribution sheet, which will be described later.

The fire insurance record described above not only gives the correct monthly charge for fire insurance, but shows any time at a glance just how much insurance is carried and how distributed. The importance of this is evident: it enables the manager to keep everything fully insured and to avoid over-insurance. At any time the correct amount of prepaid fire insurance is shown by the total of column 14 minus the sum of the totals of the closed monthly columns, or by the total of column 28 plus totals of the open monthly columns. The total of column 27 accurately forecasts the total amount of insurance charge for the whole year, provided no further changes are made by additions or cancellations. At the end of the year the total of column 28 gives the exact amount of prepaid fire insurance to be included in the balance-sheet and will agree with the balance of the ledger account prepaid insurance, provided, of course, that the ledger account

represents fire insurance only. Furthermore, this amount can be quickly verified by listing the amounts in column 28 opposite each policy having blank spaces in columns 5 and 6.

The record for the following year is opened by entering therein those policies still in force. The amount in column 28 of the old record is the correct figure for column 14 of the new record.

Records similar to the fire insurance record may be prepared to take care of other kinds of insurance, such as boiler, plate glass, automobile, etc.; but these records will not require the distribution columns 8, 9, 10 and 11.

For the departmental distribution of all insurance expense, the premium charges for the current month as shown by the totals in the respective insurance records (fire, boiler, etc.) are transferred to the insurance distribution sheet illustrated on page 23. The total premium charge for the month from the fire insurance record is entered in column 7, line 20. Totals from the other insurance records are entered on the same line in the columns corresponding to the respective records, and the grand total (cross-footed) is entered in column 13. This grand total is the total charge for the month for all insurance expense, which is to be distributed over the various departments into which the business is divided. In the proper columns, on line 21, are entered the totals from the policy distribution columns in the fire insurance record. The amount on line 20, column 7, is distributed over columns 3, 4, 5 and 6, on the the same line, in proportion to the amounts in force shown on line 21.

It will now be noted that the amounts thus inserted on line 20 in columns 3, 4, 5 and 6 constitute the totals of the fire insurance charge on building, equipment, merchandise (or finished product) and raw material, respectively. Each of these totals is in turn to be distributed over those departments which should bear a portion of such change. This distribution is based on the relative value of such property in the departments involved. Having once computed this relative value, it may be expressed in percentages, using the space provided therefor in the margin of each column. Each percentage column must total 100 per cent. The same percentages may be used month after month so long as no important

DEPARTMENTAL DISTRIBUTION OF INSURANCE EXPENSE—MONTH OF........................

		2	3		4		5		6		7		8		9		10		11		12		13
			FIRE INSURANCE PREMIUMS										Boiler		Plate glass		Auto-mobile		Work-men's compen-sation				
			Building		Equipm't		Mdse.		Raw material		Totals												
Line No.	Dep't Symbol	DEPARTMENTS	%	Am't	%	Am't	%	Am't	%	Am't	%	Am't	%	Am't	%	Am't	%	Am't	%	Am't	%	Am't	Totals
1																							
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
0																							
11																							
12																							
13																							
14																							
15																							
16																							
17																							
18																							
19																							
1																							
20		Total premiums																					
		Fire insurance in force	Bldg.		Equipm't		Mdse.		Raw mat'l		Total												

changes occur in the value of the properties in the several departments. In column 7 on each line enter the total of columns 3, 4, 5 and 6 on that line.

Similarly, the totals entered on line 20 in columns 8, 9, 10, etc., should be distributed logically over the proper departments. Quite probably the total of some of these columns (as well as of some of the fire insurance columns) will be chargeable to a single department. The premium for workmen's compensation insurance will be distributed on the basis of payrolls in the several departments. In column 13 on each line enter the total of columns 7, 8, 9, 10, etc. The total of column 13 should then agree with the amount already written in that column on line 20.

Column 13 now shows the total amount of insurance premium chargeable to each department, and prepaid insurance is to be credited with the grand total, line 20, column 13.

This treatment of expenditures for insurance removes all the uncertainties of guess-work and estimates, and places every cent of such expense where it rightfully belongs, even down to the final departmental distribution. Once tried it will prove far more satisfactory than the loose practices now in common use.

Retail Clothing Store Accounting

By Max Schlessinger

The type of retail store referred to in this discussion is the one that manufactures its own clothing. It differs from the ordinary type of retail store, inasmuch as it is a combination of a manufacturing plant and a department store. It has, therefore, its peculiar problems, which probably would not be found in the ordinary department store.

Ninety-five per cent. of the income of a retail clothing store is received in cash. It is, therefore, one of the main problems, how to account accurately and speedily for cash receipts.

The original record of the transaction is the sales ticket. The ticket is made out in two ways: (1) by salesman, when making the sale; (2) by special clerk who makes it out on a special register machine. The ticket contains the following information: number, date of sale, name of salesman, name of customer and address, description of garment sold, price and whether paid in full or deposit given and balance to be paid when delivered.

Next comes the cashier's daily sheet. This sheet contains the following information: date, name of salesman, name of customer, number or style of garment and amount received. It has additional columns into which the amount is distributed. At the end of the day the cashier adds up his daily sheet and summarizes it as follows:

Dr:
- Cash
- Balance

Cr:
- Sales
- Accounts receivable
- Balances receivable
- Employees
- General

It is also necessary in some special cases to show what amount has been deposited in the bank and what has been paid out by the cashier. These entries are given to the bookkeeper, to be recorded in the general cashbook.

Cashbook. The cashbook is simply an enlargement of the cashier's daily sheet. It has additional columns to take care of such receipts as can not be placed in any of the columns contained in the cashier's daily sheet. It has, in places where disbursements are made out of the daily receipts, additional columns, headed "bank" and "cash on hand."

The total of these two columns accounts for the total receipts. The disbursement side of the cashbook has all columns which are usually found in any establishment that does considerable business, and in some places has a cash-on-hand column, which is simply kept as a memo. of all payments made out of the daily receipts to correspond with the column "cash on hand" on the debit side.

Auditing of Receipts and Disbursements

Receipts. The receipts of a retail clothing store are audited in several ways. (1) The cashier's daily sheet is checked with the salesman's daily slip. Where the sales ticket is made out by a special clerk, on a duplicating machine, the duplicates are checked with the cashier's daily sheet. (2) The cashier's daily sheet is checked with the cancelled original sales tickets. These are the receipts which are originally given to the customer and taken back when delivery is made. The delivery clerk is instructed not to deliver any garment without getting back the original ticket (a bill is given to the customer instead of the original ticket). (3) The cashier's daily sheet is checked with the records of the stock clerk. For that purpose, a daily stock sheet is kept by the clerk, on which all merchandise received from the factory and all garments sold are recorded. It is for the auditor, taking all circumstances into consideration, to decide which is the most effective way.

Accounting for Balances

One of the difficult features in retail clothing store accounting is to account accurately the total amount due on balances and to reconcile it with the garments left in the busheling department. A controlling account is kept in the general ledger headed "balances controlling" to which the totals of the "balance" columns in the cashbook, dr. and cr. respectively, are posted. The difference should represent the total amount due on garments on which there are unpaid balances. The details of this account are kept

in a subsidiary balance book, which contains the following information: date of sale, name of salesman, style of garment, price, deposit, balance, date paid and number of cashier's daily sheet. A list of open balances is prepared periodically, which is checked with the garments in the busheling department. In my experience, I found this record to be of great importance, as many a time garments on which there were unpaid balances were by error or otherwise delivered to the customer and money was thus recovered which would have been lost, unless this periodical check on the busheling department had been kept.

Auditing of Disbursements

The auditing of disbursements of a retail clothing store does not present any peculiar problems. Where payments are made in currency out of the daily receipts a voucher must be produced to show the correctness and propriety of the payments made. The auditor, however, must discourage the above practice and advocate the "imprest" system, instead.

Charge Book

The percentage of business done by a retail clothing store on credit is usually very small. The charge book, therefore, is not very heavy. It contains the following information: date, name of customer, name of salesman, description of garment and price. It has three money columns, which are headed, "total," "accounts receivable" and "employees." As it is customary for the employees of a retail clothing store to take goods for their own account and to pay in weekly instalments, a separate controlling account must be kept in the general ledger, showing the total amount due from employees.

Purchase Book or Voucher Record

The purchases consist of the following: piece goods, trimmings, finished goods, sundry supplies, sponging, sundry expense bills, etc. The purchase book must be designed so as to classify that information. As the custom of trade in the clothing business is to allow discount, ranging from 3% to 10%, it is advisable to enter the bills net. A separate column, headed "discount," records all the discount allowed on each particular bill. The entry, at the end of the month, is to charge purchases (properly classified) and to credit accounts payable with the net amount and discount with the difference. It seems to me that this

arrangement of the purchase book is quite helpful to the auditor, as he can tell at a glance whether discounts taken are correct or not.

Contractors' Labor

In some establishments the work, although cut on the premises, is given to outside contractors to be made up into garments. Each time work is given out, a statement is made up, accompanying it. This statement takes the place of the contractor's invoice and should form the basis of an entry, either in a separate contractor's journal or in a purchase book, charging labor account and crediting the contractor's individual account in the creditor's ledger.

General Journal

Any entries which cannot properly be recorded in one of the foregoing books are recorded in the general journal. Any journal, with six columns, divided, will do.

General Ledger

The following accounts will usually be found on the general ledger of a retail clothing store:

Asset accounts

- Cash
- Bank
- Accounts receivable
- Employees
- Balances controlling account
- Petty cash
- Inventories of merchandise (classified as to finished goods, goods in process, sundry supplies, piece goods, trimmings)
- Furniture, fixtures, machinery
- Investments
- Special assets, such as prepayments, and any other assets which might come into the possession of the establishment.

Liability accounts

- Accounts payable
- Notes payable
- Loans payable

Salaries and labor accrued and any other liabilities which the establishment might incur
Capital accounts.

Income accounts

Sales (classified as to charge and cash)
Sale of waste
Sales of finished goods, odd lots at reduced prices (the above two accounts are closed out to purchases and original inventories of merchandise, respectively)
Interest on bank balances.

MERCHANDISE EXPENSE ACCOUNTS

Purchases (classified as to piece goods, trimmings, sponging, sundry supplies and finished goods).

Labor (classified as to designing, cutting and making).

Manufacturing expense (classified as to rent, repairs to machinery, heat, light and power, factory insurance and sundries).

Selling expense (classified as to salaries of salesmen, stock clerks, busheling department, advertising, commission and bonuses, etc.).

General and administrative expense (classified as to salaries of managers, office expenses, rent, insurances, telephone, telegrams, postage and sundries).

Interest account, charities, reserves for the depreciation of fixtures and machinery and such other accounts as circumstances may require.

For the purpose of classifying the component parts of a certain account, I find the tabulated ledger sheet of benefit. It saves the inconvenience of handling a large number of accounts and has the required information at the same time. It has also the advantage of having all the facts making up a certain group consolidated in one single amount.

Periodical statement. The periodical statement does not differ materially from the periodical statement made up by any other establishment. The main part of this statement is the percentages which show the relation between certain groups of facts. The statement should be so made up as to enable any manager, who is thinking about the progress of the establishment, to make up his budget for the ensuing year.

Stock records. In an establishment where there is no complete cost system, the management should insist that a stock record of all finished garments be kept. The best form is the card. Each garment as it is received should be recorded on a card, giving the number of card, date, style of garment, from whom received. When any particular garment is sold, the card is taken out and placed in "sold file." The name and address of the customer buying the garment is entered on that card. It is filed in numerical order. The management should see that the stock is periodically checked with the cards, so as to make sure of the accuracy of the record.

Contractors' stock-book. A separate stock account should be kept with each contractor, charging his account with all cut garments given to him and crediting his account with the number of garments returned. It is understood that this record should tie up with the receiving clerk's records.

Problems for General Consideration

Valuation of inventories. Inventories of merchandise should always be valued at cost price, even though the market is lower. This perhaps would be in opposition to the general doctrine that stock should always be valued at the lower price. It seems to me, however, that in order to ascertain exactly the operation for a certain period and for comparative purposes, a single basis for valuation of stock must be adopted. The stock in a retail clothing store is usually large and unless it is valued on a uniform basis, from year to year, the character of the operations and the profitableness of the business could never be accurately ascertained. Any small variation in valuing the garments would mean many thousands of dollars.

Price Fixing

One of the difficult problems confronting a retail clothing store manager is the fixing of the selling price. It is understood that cost records must be kept as accurately as possible in the circumstances, and it is of great importance that the cost records be checked often, especially in stores where no complete cost system is kept.

Overhead Expenses

The manager must have an accurate idea as to the percentage of overhead expenses which he is to add to the cost of the

garment, and this is where the value of statistical statements is seen. By overhead, in this particular case, I mean all the expenses of running the establishment, including managerial salaries and proprietors' drawings. Then a legitimate profit must be added, so as to yield a return on the investment. Again I must recommend that as a basis for calculations the cost of the garment be taken. While it is customary to calculate percentages on sales, I think the manager is always on the safe side when basing his calculations on cost, for the simple reason that cost is a determinable quantity, as long as a certain amount has been spent for material, labor and manufacturing expenses. The sales, however, are an undeterminable quantity—consequently the percentage on sales would vary with the sales. The question usually comes up: "What amount of business must I do in order to cover my expenses?" While this amount can usually be determined by referring to past experience, no one knows whether the sales for this period will be larger or smaller than in the period passed. The volume of business in a retail clothing store is usually hard to determine, as it is dependent upon such factors as weather conditions, whims of fashion, change of localities and social conditions. The retail clothing store is an entirely local establishment; and its volume of business is apt to change with such changes of locality as shifting of population, construction of local means of communication, etc. The thoughtful manager should always have these things in mind, when laying out his plans for the coming year and determining his selling policies.

Labor Problem

In certain localities, the retail establishments hire their assistants for a period of one year and are bound by agreement not to discharge them until the end of that time. The question then is for the manager to determine exactly how many men he must have in order to run the establishment. He must guard himself against being short of assistants and against having too many idle hands on the payroll. It is of great help to a manager to keep some kind of efficiency records showing the productivity of each man, in terms of the cost of each sale per man. For that purpose a salesman's record should be kept, on which the total sales of each man are entered daily. This sheet is totaled at the end of the month. Each man's total for the month is reduced to

a daily average. (This avoids the error of taking in absences.) This daily average is compared with the average wage and thus a rate is established which shows the efficiency of each particular man. The manager should have no trouble in determining in advance the number of employees required in the course of the year, if he carefully studies his figures for the past period. In certain instances, where it is available, extra labor can be hired to tide over the busy seasons. This is advisable in some instances, where the efficiency or inefficiency of the extra men or women does not affect the general goodwill and policies of the establishment.

Stock of Merchandise on Hand

How large a stock should a retail clothing store have? This question is one of the stumbling blocks in many an establishment. It differs materially from some other establishments as the sale of merchandise is usually left to the choice and selection of the customer. A wholesale merchant can manage to push particular numbers, but the retailer cannot very well do so. His stock must always be replenished with new styles and must be large enough to meet all demands. The turnover of stock may be abnormally slow. This is a very unfavorable state of affairs, as it is never to the advantage of the establishment to have its stock accumulate from year to year, even though it is making money. The manager must pay strict attention to this matter, and see that the stock moves. A special sale should be periodically made of left-overs, odd sizes, etc., even though a little loss has to be taken on them. It is understood that the buying must be so arranged as to accomplish the desired result, that is to have the stock as small as possible. The buying of various classes of merchandise, such as piece goods, trimmings and sundry supplies, should be so coordinated as not to have merchandise of one class entirely out of proportion to merchandise of the other classes.

Transactions Between Partner and Firm

By W. A. Paton

The personification of the business enterprise is not an unreasonable figure for the accountant to adopt, particularly in corporation accounting; but in the case of the partnership there is no legal fiction to support this view, and if insisted upon in certain types of transactions it is likely to obscure the actual situation.

So-called transactions between partner and firm, for example, are virtually transactions between partner and partner, instead of between a partner as an outsider and the partnership as a business entity; and unless the special character of such transactions is clearly recognized in the accounts in some way erroneous conclusions may be drawn. In current discussion of the subject, however, it is usually urged that these transactions should be viewed in the same way, and handled in the same accounts, as transactions between the partnership and outsiders. There are at least some reasons for questioning the propriety of such recommendations.

Let us consider first the case of a partner "borrowing" from the firm. Suppose that A and B are partners in some commercial undertaking, and that B finds himself in need of funds for personal expenditures. Assume further that there are no profits available from which to draw and that B borrows $20,000 from the firm on his promissory note. The note carries six per cent. interest and is payable to the firm in one year. How should this transaction be interpreted and how should it be recorded? If handled in the regular way the amount of the note would be charged to notes receivable, as in the case of a note made by an outsider, and the concurrent credit would be of course to cash. According to these entries the transaction involves simply an exchange of assets and does not affect the financial status of the business—that is, asset and equity totals remain unchanged.

But does this represent the actual situation? The note may be an entirely legitimate document, but does it replace the cash withdrawn in any but a formal sense? Let us ask first if the assets of the firm are maintained from the standpoint of a creditor. Here the fact of unlimited liability is an important consideration. If the A and B partnership is of the usual type the creditors depend

for security not only upon the assets of the business but ultimately upon the entire personal estates of A and B as well. In other words the law does not consider a part of the assets of A and B as subject exclusively to the claims of creditors: all their assets are involved. The depositing of B's note, accordingly, does not itself maintain the assets and protect the creditor in the same way as would the receipt of a note made by a responsible outsider. As to whether B's borrowing diminished the creditors' security or not depends primarily upon what disposition B makes of these funds. If he invests the $20,000 in property without any loss in value, the position of the creditors is essentially unchanged. If B loses or spends this sum his estate is diminished by $20,000 and the ultimate security of the creditors is impaired to that extent.

In case of liquidation there would perhaps be some advantage to the creditor in having a specific note against B available. But the creditors' position would be essentially the same if no note were deposited and if the sum of $20,000 drawn by B was not borrowed but was instead a retirement of a part of B's capital investment in the partnership.

In the case of a corporation the situation would be entirely different. A note made by a stockholder in favor of the corporation would in general be as legitimate a corporate asset as the note of any equally responsible outsider. (If the borrower were a director or any stockholder with a large interest the cautious auditor would, of course, look into the situation with considerable care, particularly if the amount involved were large.) Such a note would put the corporation in possession of a right entirely in addition to and distinct from any rights it might previously have had against the stockholder as a member of the corporation. In other words, the fact of limited liability means that the stockholder usually only jeopardizes the amount of his investment and that the creditor of the corporation, consequently, has no rights against any other property the stockholder may have.

The partners, of course, wish to have the accounts show the history and status of the enterprise as a distinct business entity, but it is doubtful if B's note can properly be considered an asset even from their standpoint. If this note is an asset, then B is part owner in a right against himself—a somewhat fantastic conception. The point involved can perhaps best be made by taking a rather extreme illustration.

Suppose that A and B are equal partners and have invested \$500,000 in a timber tract and sawmill. Suppose further that as the original capital becomes available in current funds the partners "borrow" these funds from time to time, depositing their personal promissory notes carrying an agreed rate of interest to cover these borrowings. (Net income, it may be assumed, is divided equally and withdrawn at the end of each accounting period.) Assuming that the entire original investments were finally liquidated, and that all funds were withdrawn in this manner, the balance-sheet of the partnership—before dissolution—might appear somewhat as follows:

Notes receivable	\$500,000	A, capital	\$250,000
		B, capital	250,000
	\$500,000		\$500,000

Evidently in this case the partnership as an enterprise has no assets, although according to the above balance-sheet the assets total \$500,000. It seems clear that these notes cover virtually partnership drawings. The accounts to which these notes are charged are proprietary adjustment accounts and hardly represent assets of the partnership in any sense. The making of these notes is one way of preserving equity as between A and B; and if drawings have been unequal, as is usually the case, an adjustment will have to be made. Each partner might, of course, insist upon the payment of the gross amount of the notes and the subsequent equal division of the funds thus raised; but this procedure would be essentially equivalent to an adjustment between the partners involving only the net amount. If, for example, A had borrowed \$300,000 and B \$200,000 in this case, dissolution could be accomplished if A simply made a payment of \$50,000 to B; and this procedure would bring about the same result as would be attained if all the notes were paid and the funds deposited to the account of the partnership to be later equally divided between the partners.

Partners' borrowings, then, are essentially equivalent to partners' drawings; and the superficial distinction that exists between the two cases should be ignored when one is interpreting the accounts from the standpoint of the actual financial status of the partnership. A note drawn by a partner in favor of the partnership should be viewed, not as an asset similar to any note made by an outsider, but as a proprietory adjustment between the partners;

and such an item might well be charged to an account entitled "loan to B," for example, instead of notes receivable, so that its peculiar nature would be less likely to be misunderstood.

Similarly, in interest on partners' borrowings, situations may arise which require special treatment. It is commonly held that interest accruing on such borrowings should be credited to the regular interest accounts; but there are some cases at least in which this treatment is questionable, if not actually improper.

Suppose, for example, that in the case first referred to above, interest on the loan to B was due every six months, and that at the first interest payment date B for some reason found it inconvenient to make the payment. Suppose further that it is finally agreed between the partners that a charge be made to B's account for the amount of interest due, $600. The concurrent credit in such a case is usually to the interest revenue account, and if this procedure is followed the entries giving effect to this agreement would be:

B, capital	$600	
Interest		$600

The credit to interest is ostensibly a revenue item, but a careful examination of the case discloses the fact that no revenue whatever is involved and that the essence of this transaction is simply an adjustment between the two partners. This can perhaps be best shown by an examination of hypothetical balance-sheets as affected by this transaction alone.

Let us assume that the balance-sheet just after B borrows the sum of $20,000 stands as follows:

Various assets	$60,000	A, capital	$40,000
Loan to B	20,000	B, capital	40,000
	$80,000		$80,000

Ignoring all other possible transactions, and assuming that A and B share income in proportion to respective investments, the item of interest revenue recognized in the above entries might now be divided and credited to the partners' capital accounts. The entries would be:

Interest	$600	
A, capital		$300
B, capital		300

The balance-sheet, as affected only by these entries, would now appear as follows:

Various assets	$60,000	A, capital	$40,300
Loan to B	20,000	B, capital	39,700
	$80,000		$80,000

It might be urged that, even admitting that the introduction of the entries in the interest account in the above transaction is a formality which serves a useful purpose in presenting clearly the history of the transaction, this procedure does not disturb the accuracy of the final balance-sheet. The answer to this argument is that although the integrity of the balance-sheet is not disturbed by this kind of accounting that of the income sheet is. If credits of this type are included with regular interest earnings they go to swell the final net income figure. The amounts may be small, but the principle involved is important. No accounting procedure should be approved which permits the shifting of an item of original proprietorship from one proprietor to another to affect the statement of net income.

A comparison of the two balance-sheets shows very clearly that no revenue whatever has been realized since asset and equity totals remain unchanged. The introduction of the interest account is evidently a bit of formal procedure which has nothing to do with actual income. The net effect of the whole transaction is an adjustment between the partners: an item of B's equity, $300, is transferred to A's capital account. Total proprietorship, however, is not affected, and hence no profit has been realized. B's equity has declined and A's equity shows a corresponding increase; the partnership as an enterprise, however, has neither suffered a loss nor realized a gain. The debit and credit entries to the interest account might indeed have been omitted; and in this case the transaction would be recorded as follows:

B, capital	$600	
A, capital		$300
B, capital		300

or simply,

B, capital	$300	
A, capital		$300

The history of the transaction can be fully revealed by the use of some account other than the general interest account if it is desired to bring in an additional step in the entries. This account might be called "partnership adjustments" or by other appropriate title. The point to be emphasized is that whatever the title of the special account involved, it must not be considered an income account.

Even if B had actually paid in cash the amount of the interest due, $600, at the end of six months, it is doubtful if this should be considered a revenue transaction from the point of view of the partnership. Certainly such a transaction has no reference to earnings or operation in the usual sense. There is, in this case, an actual increase in total assets; but if the concurrent credit is made to interest this means that the partnership has actually earned $600, and since B has a half interest in all income the amount of $300 must ultimately find its way to his capital account as a credit. As far as B is concerned, then, the amount of $300 is virtually transferred from one pocket to another—from outside interests to the partnership—and really represents new investment. A has actually earned $300, however, as a result of permitting $10,000 of his funds to be used by B for six months. But has the partnership as an enterprise earned anything?

The foregoing brief discussion would seem at least to indicate that there is good reason for viewing all transactions between partner and partnership as of a distinct type, and that to avoid misconceptions all such transactions might well be handled through special accounts.

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EDITORIAL

Holding the Accountant Responsible

The Journal of Accountancy has frequently urged the desirability of placing upon the shoulders of the accountant full responsibility for his work. Because of the lack of court decisions in this country on the subject of the accountant's responsibility there is a wide difference of opinion as to how far the accountant may be liable for errors of judgment or errors of intent.

The general opinion seems to favor the theory advanced in several English cases to the effect that the accountant must exercise reasonable care in the preparation and certification of reports, and beyond that point he may not be held responsible. This, however, does not indicate to what extent an accountant may be liable when he does not exercise due care or when he is guilty of gross carelessness. This point will not be settled until some accountant is charged with neglect of his professional obligations and damages are assessed. The sooner such a case is decided the better it will be for the entire profession.

This must not be interpreted as expressing a belief that there is any widespread attempt to avoid the responsibility which should rest upon the profession. In the great majority of cases the accountant is quite impartial and does carry on his labors with a care and diligence which fulfill the accepted meaning of the word "reasonable."

When the American Institute of Accountants was founded one of the principal arguments in favor of the new organization was the disciplinary power which would be created by a change from indirect to direct membership. Representatives of the institute informed government departments that discipline would be swift

and severe whenever cases of malpractice were discovered and tried. The record of the institute indicates that this undertaking has been carried out.

The great difficulty, however, is to induce persons who have knowledge of wrong-doing to make complaint to the institute. Every member owes a debt to the organization to report matters which may come to his attention and would reflect upon the good name of the profession. A mere statement of facts may be presented to the executive committee which will see that the necessary investigation follows. The person reporting the facts may, if he desires, remain in the background, although this is certainly not advisable.

One of the principal ways in which professional evils may be brought to light is by action of government departments before which accountants appear. For example, the bureau of internal revenue has become something of a supreme court before which accountants practise. The bureau might well act to disbar practitioners found guilty of wrong-doing, and, if notice of such disbarment were given the institute, there would be prompt trial and action in the case provided the persons disbarred were members of the organization.

It is evident that the importance of high professional morality is recognized by the bureau of internal revenue. In the course of a speech by Commissioner Daniel C. Roper before the National Association of Manufacturers this point was quite strikingly emphasized. The daily press carried extracts from the speech, but it is likely that the matter did not receive the attention which its significance deserves.

The following excerpt from the address may well be taken to heart by every accountant:

"The bureau holds an open door to every taxpayer and to the authorized representative of any taxpayer for the presentation of claims and appeals and for the argument of cases under consideration. At the same time it has been discovered that in this kind of legal and accounting practice certain abuses have developed. Taxpayers have suffered in some instances as the result of unethical conduct on the part of tax advisors and consultants who have sought their own advantage in the mystification of their clients and in the delay inevitably incident to the pro-

cedure of the bureau. Our plan is not to question the intentions and procedure of representatives of taxpayers until such representatives by their own conduct forfeit such confidence and thus debar themselves from future practice before the department."

It will be eminently salutary if the threat contained in the foregoing quotation is carried out—and we believe that there will be no hesitancy in putting the threat into execution. The American Institute of Accountants certainly will support every proper effort to prevent unprofessional or dishonest conduct on the part of persons describing themselves as accountants.

The extent to which this control may finally be carried is indicated in another part of the commissioner's address wherein he suggests the establishment of a tribunal resembling the customs court.

"The attitude of the bureau toward taxpayers who are disposed to appeal from the official decisions in their cases is considerate and open minded. We wish to entertain and give full consideration to appeals and claims in specific cases, as well as to general suggestions for improving the policies and procedure being followed. If the final action of the bureau is not acceptable to the taxpayers, we have within the bureau a separate and impartial appellate body known as the advisory tax board, composed of specialists in economics, law, accounting, business and government administration. It is hoped that the functioning of this board will eliminate a large number of cases which otherwise would be taken directly to the courts. By thus reducing litigation, the course of tax cases in the federal courts will be expedited. This result is greatly to be desired by the taxpayers and by the bureau. Further to expedite the cases which are taken to the courts, it is thought that a separate and permanent internal revenue division should be created in the department of justice, similar to the customs court."

While on the subject of professional dishonesty it may not be amiss to suggest that there be some kind of regulation prohibiting persons from describing themselves as income tax experts. There are, no doubt, many accountants who can qualify as experts in income tax practice, but we frequently hear of men who have been revenue officers or lawyers or accountants or engineers or what not setting up in business as income tax advisors. If they

have not a fair working knowledge of income tax law and procedure they may deceive the public, defraud the government and generally bring into disrepute the administration of the income tax law and may injure the fair name of those professional men who have the knowledge required properly to advise the bewildered taxpayer.

National Budget

It really begins to appear that the United States is about to enter upon a great and much needed reform. The national budget, which has been a kind of will-o'-the-wisp pursued by practical men in congress but eluding actual capture, now seems to have become an almost tangible reality. Both houses of congress express themselves in favor of the adoption of a budgetary system, and the measure if passed will probably not be vetoed.

The extraordinary thing about the whole affair is the necessity to debate the adoption of such a system. In the twentieth century, which certainly may be called the era of business, it is incomprehensible that any body of ordinarily intelligent men should find it necessary to discuss the approval of an elementary factor of business procedure. The practical business men in congress are a minority—not necessarily the minority party—but the professional men who preponderate might be expected to have sufficient knowledge of the rudiments of business to recognize the necessity of counting the cost before building. We have scriptural authority for the fate which will befall the man who starts to build without a budget. We have the example of every other civilized nation before us. But the United States has floundered along the entire course of its national career without any definite idea of what it would spend, how it would spend it or whence would come the money to be spent.

The labors of the economy and efficiency commission appointed by President Taft were instrumental in impressing upon the public, even if not upon official Washington, the necessity for a national budget; but, probably because of interested motives, there has been no realization of the proposed reform. It therefore remains for the present congress to demonstrate its superiority over its predecessors and its appreciation of fact by promptly enacting a law providing for a budget.

It is of primary importance that the budget act should be so worded as to call for a budget prepared upon sound business principles, not upon vague and possibly interested ideas of theorists.

What we have said does not imply in any way that congress should rashly enact the first budget bill presented to it. We cannot understand how there can be any difference of opinion as to the need for a budget, but it is obvious that the details of the bill must be prepared with great care.

Perhaps the major problem in working out a budget plan concerns the audit machinery. Some authorities think that under a budget plan this responsibility and authority ought to continue to rest, where it was placed by Alexander Hamilton, under the supervision of the secretary of the treasury. If congress undertakes to set up an audit machine subject to its control, the results are not likely to be satisfactory, and certainly the authority should not be vested in any spending department. To be effective it must be lodged in the hands of a cabinet officer, as otherwise the audit administration would be too weak.

Here is an opportunity for the United States to show itself a practical nation. Such opportunities should not be allowed to pass.

Income Tax Department

EDITED BY JOHN B. NIVEN

Since the last issue of THE JOURNAL OF ACCOUNTANCY, ten treasury decisions relating to income taxes have been published by the treasury department and are herewith presented.

While T. D. 2840 will reach the readers of THE JOURNAL too late to be of value with payments which were due June 15, 1919, it may serve as a precedent in the event that the "last due date" falls on a Sunday in future. The ruling deferring the time limit until the next day in such case is, indeed, only a special notification of the general regulation contained in article 447, applicable whenever the last due date falls on a Sunday or legal holiday.

Attention is directed in the treasury decision to the omission from section 250 (a) of the revenue act of 1918 (which specifies when tax payments are due) of the ten-day period of grace allowed under the former law before penalties begin to accrue. Section 250 (e) of the present act provides that the 5% penalty and 1% monthly interest are to be added from the due date "if any tax remains unpaid after the date when it is due, and for ten days after notice and demand by the collector," but these terms seem to be similar to those of the former act.

T. D. 2843 is simply a reaffirmation, on the strength of the opinion of the attorney general, of article 85 of regulations 45, which recognizes the constitutional exclusion of the compensation of state officers and employees from liability to federal taxes.

T. D. 2844 amends article 445 of regulations 45, covering extensions of time to persons abroad, the new material being printed in italic. Instead of requiring that "the whole tax shown to be due must be paid at the time of filing the return," the regulation now requires only that "the instalments of tax which are *actually* due must be paid at the time of filing the return, and the other instalments shall be paid as they fall due." The due date for the first payment being the date of filing, no interest is charged to that date; but this is true only if the case comes under the privilege of the general extension, *without special application*. This is not taken to mean that, if an individual unaware of this general extension should make specific application on the same grounds as those upon which the general extension was granted, he would be required to pay interest. It is only where the extension is granted "for other reasons" that interest must be paid.

T. D. 2847, as amended, is in reply to repeated questions as to whether corporations are entitled to deduct from their gross income for the purpose of the income tax the amount of contributions to religious, charitable, scientific or educational corporations or associations, these questions arising most frequently with reference to contributions made to the Red Cross

and other war activities. The decision states that they are not and gives the reasons therefor: they do not come under the terms of any allowable deduction for corporations, as described in the act.

T. D. 2849 supplements item 20, schedule A, page 2 of form 1120, corporation income and profits tax return. Item 20 now states in parentheses "if depletion is claimed, form A (revised) of mines and minerals section should be obtained from the collector, filled in and filed." Form A is for taxpayers engaged in mining, but in accordance with this decision taxpayers claiming depletion *of oil and gas wells* will fill in and file form N.

T. D. 2850, relative to the acceptance by collectors of certificates of indebtedness in payment of income and profits taxes due June 16, 1919, although appearing herewith subsequent to that date, is nevertheless printed in accordance with the policy of The Journal to reprint for its readers all treasury decisions relative to income and profits taxes.

T. D. 2851 contains instructions to collectors upon receipt of uncertified cheques in payment of taxes and the procedure with respect to dishonored cheques.

Because of delay in the issue of 1919 forms, a further extension of time to July 15, 1919, has, under T. D. 2856, been granted to partnerships and personal service corporations having fiscal years ending in 1919 whose returns would otherwise be due before July 15th. Corporations other than personal service corporations having, likewise, fiscal years ending January 31st, February 28th or March 31st, have also been granted a similar extension, provided that on or before June 15th they filed a tentative return on form 1031 T and paid one-fourth of the estimated tax.

Under D. T. 2857, if a taxpayer exchanges Victory notes of either series for which he originally subscribed for Victory notes of another series, the notes issued to him upon conversion will be deemed to have been originally subscribed for by such taxpayer. This affects the additional tax exemption for Liberty bonds granted by section 2 (b) of the Victory Liberty loan act.

That dividends received by a partnership and distributed to the members thereof retain their status as dividends, instead of becoming business profits, is the gist of T. D. 2858, containing confirmation by the circuit court of appeals of a case under the 1913 act.

Manual for the Oil and Gas Industry Under the Revenue Act of 1918

To assist the taxpayer of the oil and gas industry in correctly and expeditiously preparing his federal tax returns, the bureau of internal revenue has prepared a *Manual for the Oil and Gas Industry Under the Revenue Act of 1918,* copies of which may be obtained on application to the commissioner.

The manual is based largely upon information gathered during the fall of the year 1918 by a corps of geologists, technologists and engineers. The investigation was undertaken primarily to furnish a basis for valuations and depletion and depreciation deductions in oil and gas properties. Deeming these subjects to be of the greatest importance, the bureau of internal revenue instituted a most careful inquiry. All fields in the United States

were canvassed. Records of production of thousands of properties were collected and tabulated. These were carefully classified and studied by the most competent and experienced men in the country and the average future production curves and tables of valuation data were produced as a result of this study.

The book consists of three parts.

Part I deals directly with the law and regulations. These, as they relate to the oil and gas industry, are explained and numerous illustrations and examples are given to bring out their application.

Part II deals with the question of depreciation and is designed to assist the taxpayer in standardizing his classification of equipment. It also offers suggestions as to relative rates of depreciation for different types of physical property.

Part III consists of descriptions and methods of estimating underground oil reserves, especially by means of production curves.

TREASURY RULINGS

(T. D. 2840, May 13, 1919.)

Income and excess profits taxes.

Due date for payment of second instalment of income and war profits and excess profits taxes based on calendar year returns.

Taxpayers and collectors are notified that June 15, 1919, is the date named for payment of the second instalment of income and war profits and excess profits taxes based on returns for the calendar year 1918, and for payment of the second instalment of other taxes the first instalment of which was due on March 15; but, since June 15 falls on Sunday, such payments reaching the collector on Monday, June 16, 1919, will be accepted in full without interest or penalty. Taxpayers are urged to make payment on or before that date, and their attention is called to the fact that section 250 (a) of the revenue act of 1918, specifying when tax payments are due, omits the 10-day period of grace allowed under the former law. Failure to pay the second instalment on or before June 16, 1919, will necessitate the addition of penalties and interest, as provided by law.

(T. D. 2843, May 17, 1919)

Income tax.

Salaries of state officials and salaries and wages of employees of a state are not liable to income tax imposed by the revenue act of 1918.

Section 213 (a) of the revenue act of 1918 provides that gross income shall include "gains, profits, and income derived from salaries, wages, or compensation for personal service * * * of whatever kind and in whatever form paid."

In accordance with an opinion of the attorney general, dated May 6, 1919, and based on the well-settled rule that governmental agencies of the states are not subject to taxation by the federal government, it is held that salaries of state officials and salaries and wages of employees of a state are not subject to the income tax imposed by the said revenue act of 1918.

(T. D. 2844, May 17, 1919.)

Income tax.

Article 445, final edition of regulations 45, amended to permit taxpayers residing or traveling abroad to pay at the time of filing returns only the instalments of tax past due without interest at the rate of one-half of 1 per cent. per month and other instalments as they fall due.

The final edition of regulations 45 is amended by changing article 445 to read as follows:

ART. 445. *Extension of time in the case of persons abroad.*—In view of the disturbed conditions abroad and the consequent interference with the usual channels of communication, an extension of time for filing returns of income for 1918 and subsequent years and for paying the tax is hereby granted in the case of nonresident alien individuals and nonresident foreign corporations, or their proper representatives in the United States, and of American citizens residing or traveling abroad, including persons in military or naval service on duty outside the United States, for such period as may be necessary, not exceeding 90 days after proclamation by the president of the end of the war with Germany. *The instalments of tax which are actually due must be paid at the time of filing the return and the other instalments shall be paid as they fall due.* In all such cases an affidavit must be attached to the return, stating the causes of the delay in filing it, in order that the commissioner may determine that the failure to file the return in time was due to a reasonable cause and not to willful neglect, *and that the return was filed without any unnecessary delay.* If the showing justifies the conclusion that the failure to file the return in time was excusable, no penalty will be imposed. *This extension is granted as a matter of general expediency to all persons abroad owing income, war-profits, and excess-profits taxes to the federal government and is not granted upon the request of any particular taxpayer. Accordingly, in the case of taxpayers who take advantage of this general extension of time for the filing of returns and the payment of tax no interest will be collected from such taxpayers, but where a request is made by a taxpayer and an extension is granted for other reasons by the commissioner interest will be collected at the rate of one-half of 1 per cent. per month from the time the tax would have been due if no extension had been granted.*

(T. D. 2847, as amended May 24, 1919.)

Income taxes.

Corporations are not entitled to deduct from gross income the amount of contributions to religious, charitable, scientific, or educational corporations or associations, even though such contributions may be made to Red Cross or other war activities.

The revenue act of 1918 contains two sections relating to deductions which may be made in ascertaining net income subject to tax. Section 214 relates to individuals and allows as deductions (1) all ordinary and necessary expenses paid or incurred during the taxable year in carrying on any trade or business, etc.; (2) all interest paid or accrued within the taxable year on indebtedness, etc. (with certain exceptions); (3) taxes paid or accrued within the taxable year, etc. (with certain exceptions); (4-10) certain allowance for losses, bad debts, exhaustion, wear and tear of property of various sorts; (11) contributions or gifts made within the taxable year to corporations organized and operated exclusively for religious, charitable, scientific, or educational purposes, or for the prevention of cruelty to children or animals, no part of the net earnings of which inures to the benefit of any private stockholder or individual, etc.

Section 234 relates to corporations, and allows as deductions (1) all ordinary and necessary expenses paid or incurred during the taxable year in carrying on any trade or business, including a reasonable allowance for salaries or other compensation for personal services actually rendered, and including rentals or other payments required to be made as a condition to the continued use or possession of property to which the corporation has not taken or is not taking title, or in which it has no equity; (2) all interest paid or accrued within the taxable year on its indebtedness (with

certain exceptions); (3) taxes paid or accrued within the taxable year, etc. (with certain exceptions); (4 et seq.) losses sustained of a certain character, bad debts, allowances for exhaustion, wear and tear, etc.

The question is presented whether corporations are entitled to deduct from their gross income for the purpose of the income tax the amount of contributions to religious, charitable, scientific, or educational corporations or associations, this question arising most frequently with reference to contributions made to the Red Cross and other war activities.

It will be observed that there is no express deduction permitted corporations of such contributions, as in the case of individuals, and unless, therefore, they fall within the definition of some item of deduction allowed to corporations they can not be allowed. The only head within which it might be suggested that such contributions could be included is that of ordinary and necessary expenses paid or incurred in carrying on any trade or business, including reasonable salaries or other compensation, rentals, and payments for use of property provided for in paragraph 11. Practically these same deductions are permitted in section 214 in the case of individuals, and had such words included the contributions or gifts mentioned in paragraph 11 of section 214, it would have been unnecessary to put in such paragraph, as they would have been covered by paragraph 1 of such section.

The attorney general, in an opinion dated May 19, 1919, states the view that ordinary and necessary expenses contemplated by paragraph 1 of sections 214 and 234 were not intended to include all necessary expenses, because the two immediately succeeding paragraphs provide for deducting interest and taxes, both of which are necessary expenses; also the provision in regard to allowance for salaries, compensation, rentals, etc., indicates that all of the expenses, which are contemplated under the terms used in paragraph 1 of these sections, are expenses incurred directly in the maintenance and operation of the business, and not all those which may be beneficial and even necessary in the broader sense.

In addition to the above considerations and to the fact that there is express provision for deducting contributions or gifts in the case of individuals, which is wanting in the section providing for deductions to be made by corporations, reference to the legislative history of the revenue act of 1918 (*Congressional Record* for September 17, 1918), shows that an amendment providing that corporations might make deductions of contributions or gifts, as in the case of individuals, came to a vote and was defeated, the principal reason assigned in the debate being that it would be dangerous to authorize directors to be generous with the money of their stockholders even for such laudable purposes.

It is concluded, therefore, that corporations are not entitled to deduct from their gross income for the purpose of the income tax the amount of contributions made to religious, charitable, scientific or educational corporations or associations, even though such contributions may be made to the Red Cross or other war activities.

(T. D. 2849, May 27, 1919.)

Income tax.

Correcting item 20, schedule A, page 2 of form 1120, corporation income and profits tax return.

Form A, revised (mining), and form N (oil and gas) have been prepared for the use of taxpayers engaged in mining or in the production of oil and gas. A sufficient supply will be sent to collectors of internal revenue for distribution.

These forms are prescribed to facilitate the compilation and presentation of certain information required for the audit and examination of the

returns of these classes of taxpayers. If, however, it is more convenient to use other methods of tabulation, the information so furnished, if complete, will be accepted in lieu of those forms.

The information called for by these forms should be filed with the returns in complete detail either on the forms prescribed or in other suitable manner. This requirement is necessary for the reason that depletion sustained must be taken into consideration in the computation of invested capital, regardless of whether or not a deduction for it is claimed or has been claimed for it in the past by the taxpayer.

This requirement applies to individual as well as corporate taxpayers.

(T. D. 2850, May 21, 1919.)

Income and profits taxes.

Instructions relative to acceptance of certificates of indebtedness in payment of income and profits taxes due June 16, 1919.

Income and profits taxes due June 16, 1919, may be paid in treasury certificates of indebtedness of tax series of 1919, dated August 20, 1918, maturing July 15, 1919, series T 2, dated January 16, 1919, maturing June 17, 1919, and series T 3, dated March 15, 1919, maturing June 16, 1919. No other certificates of indebtedness will be accepted in payment of the taxes due on said date. Certificates of the three series mentioned will be accepted by collectors of internal revenue at par, without interest, when tendered in amounts not in excess of the amount of such taxes due June 16, 1919. They will be so accepted at any time on or before June 16, 1919. If so accepted before June 16, 1919, full interest to June 16, 1919, will be paid as below stated.

Coupons maturing on June 16, 1919, should be detached from certificates of series T 3, and coupons maturing on or before May 15, 1919, should be detached from certificates of the tax series of 1919, before presentation to the collector, and should be separately presented for payment in the ordinary course when due. Coupons maturing July 15, 1919, must, however, be attached to certificates of the tax series of 1919 and be surrendered to the collector with such certificates for cancellation; and collectors will not accept any certificates of the tax series of 1919 which have not attached thereto the coupon No. 5 maturing July 15, 1919.

Accrued interest on certificates of series T 2 (which were issued without coupons attached) from January 16, 1919, to June 16, 1919, and accrued interest on certificates of the tax series of 1919 from May 15, 1919 (the last coupon payment date), to June 16, 1919, will be remitted to the taxpayer by the federal reserve bank by cheque and the collector must furnish to the federal reserve bank the name and address of the taxpayer and the amount and serial numbers of the certificates presented in each case.

The procedure above provided will automatically adjust accrued interest in respect of all treasury certificates of indebtedness used in payment of taxes due June 16, 1919, whether presented on or before said date, and no other payment or credit will be allowed or made on account of interest in connection therewith.

Interest on treasury certificates accepted in payment of taxes ceases to accrue on (*a*) the date of the maturity of the certificates, or (*b*) the date the tax is due, whichever of said dates be earlier. The provisions hereof in relation to the payment of interest to June 16, 1919, do not apply to treasury certificates of indebtedness accepted in payment of taxes due prior to that date. Any treasury certificates of indebtedness accepted in payment of taxes becoming due before June 16, 1919, must be dealt with separately, and accrued interest will be paid only to the date the tax was due and upon surrender with the certificates of any coupons maturing subsequent to the date the tax was due. Collectors must specially notify

federal reserve banks in each case when treasury certificates are accepted in payment of taxes becoming due prior to June 16, 1919. The 15th day of June being a Sunday, the bureau of internal revenue has ruled that the taxes which by the terms of the revenue bill of 1918 are due on that date become due on June 16.

In order to avoid unnecessary dislocation of funds, it is of importance that treasury certificates of indebtedness of the three series mentioned be used by taxpayers to the utmost extent possible in payment of their taxes, in preference to making cash payment of their taxes, and federal reserve banks and collectors of internal revenue should use every effort to induce taxpayers who are the holders of such certificates to make such use of them and to facilitate such use in every manner in their power.

The instructions to collectors dated December 9, 1918 (T. D. 2778), issued by the commissioner of internal revenue and approved by the secretary of the treasury, and the instructions to federal reserve banks dated December 9, 1918, issued by the treasurer of the United States and approved by the assistant secretary of the treasury, not inconsistent herewith, remain in full force and effect.

There seems to be no reason to anticipate that the amount of taxes paid as of June 16, 1919, will exceed the amount of treasury certificates maturing on or about that date. It seems that there will be no unexpended cash proceeds arising from the payment of income and profits taxes on June 16, 1919, and therefore no redeposits will be made, nor will payment of income and profits taxes by credit be permitted.

Collectors of internal revenue will, however, be instructed to deposit cheques received on and after June 1, 1919, in payment of income and profits taxes, with federal reserve banks and branches, following to that extent substantially the procedure adopted in March. As to this procedure detailed instructions will follow.

(T. D. 2851, May 28, 1919.)

Authority of collectors to accept uncertified cheques.

Section 1314 of the revenue act of 1918 provides as follows:

That collectors may receive . . . uncertified cheques in payment of income, war-profits, and excess-profits taxes, and any other taxes payable other than by stamp, during such time and under such regulations as the commissioner, with the approval of the secretary, shall prescribe; but if a cheque so received is not paid by the bank on which it is drawn the person by whom such cheque has been tendered shall remain liable for the payment of the tax and for all legal penalties and additions the same as if such cheque had not been tendered.

The following regulations apply to all internal-revenue taxes except those payable by stamp:

(1) *Payment of tax by uncertified cheques.*—Collectors may accept uncertified cheques in payment of taxes, except those payable by stamp, provided such cheques are collectible at par; that is, for their full amount, without any deduction for exchange or other charges. The collector will stamp on the face of each cheque before deposit the words "This cheque is in payment of an obligation to the United States and must be paid at par. No protest," with the name and title. The day on which the collector receives the cheque will be considered the date of payment so far as the taxpayer is concerned, unless the cheque is returned dishonored. If one cheque is remitted to cover two or more persons' taxes, the remittance must be accompanied by a letter of transmittal stating (*a*) the name of the drawer of the cheque; (*b*) the amount of the cheque; (*c*) the amount of any cash, money order, or other instrument included in the same re-

mittance; (*d*) the name of each person whose tax is to be paid by the remittance; (*e*) the amount of the payment on account of each person; (*f*) the kind of tax paid.

(2) *Procedure with respect to dishonored cheques.*—If the bank on which any such cheque is drawn should refuse to pay it at par, the cheque should be returned through the depositary bank and be treated in the same manner as a bad cheque. All expenses incident to the attempt to collect such a cheque and the return of it through the depositary bank must be paid by the drawer of the cheque to the bank on which it is drawn, since no deduction can be made from amounts received in payment of taxes. If any taxpayer whose cheque has been returned uncollected by the depositary bank should fail at once to make the cheque good, the collector should proceed to collect the tax as though no cheque had been given. A taxpayer who tenders a certified cheque in payment for taxes is also not released from his obligation until the cheque has been paid.

(T. D. 2856, June 7, 1919.)

Income tax.

Extension of time for filing returns of partnerships, personal service corporations, and corporations having a fiscal year ending either on January 31, February 28, March 31, or April 30, 1919.

In view of the fact that the necessary forms are not yet available, a further extension of time to July 15, 1919, is hereby granted to partnerships and personal service corporations having a fiscal year ending January 31, February 28, March 31, or April 30, 1919. Corporations other than personal service corporations having a fiscal year ending January 31, February 28, March 31, or April 30, 1919, are hereby granted an extension to July 15, 1919, if they have prior to the date of this decision filed tentative return on form 1031 T, paying one-fourth of the estimated tax, or if they shall on or before June 15, 1919, file tentative return on form 1031 T, paying one-fourth of the estimated tax. Any deficiency in the first instalment as shown by the completed return must be paid with interest thereon from the original due date at the rate of one-half of 1 per cent a month at the time of filing the completed return.

This extension in the case of corporations shall not operate to extend the due date of any instalment of tax after the first. In the case of corporations filing form 1031 T, the time for filing completed returns is automatically extended as above, but not beyond the due date of the second instalment of the tax. The second instalment will be due five and one-half months after the close of the corporation's fiscal year ending in 1919.

(T. D. 2857, June 7, 1919.)

Original subscription to Victory notes.

For the purposes of the additional tax exemption for Liberty bonds granted by section 2 (b) of the Victory Liberty loan act, approved March 3, 1919, Victory notes of either series issued upon conversion of Victory notes of the other series which were originally subscribed for by any taxpayer will be deemed to have been originally subscribed for by such taxpayer.

(T. D. 2858, June 9, 1919.)

Income tax—Decision of the District Court, affirmed by the Circuit Court of Appeals.

1. Taxability of Income Derived From or Through Partnership.

A member of a partnership need not include as a part of his net income subject to normal tax such of his income derived from or through a partnership as has been received by the partnership in the shape of dividends on stocks owned by it in corporations taxable upon net income.

2. Construction of the Act.
   The law is so framed as to deal with the gains and profits of a partnership as if they were the gains and profits of the individual partners.
3. Judgment for Defendant.
   Judgment is rendered in favor of defendant.
4. Judgment of District Court Affirmed.
   The judgment of the district court has been affirmed by the circuit court of appeals.

The appended decision of the district court of the United States for the northern district of Ohio, eastern division, in the case of *United States of America, plaintiff, v. Harry Coulby, defendant* (251 Fed., 982), which was on January 7, 1919, affirmed by the United States circuit court of appeals, sixth circuit, is published for the information of internal-revenue officers and others concerned.

In the District Court of the United States, Northern District of Ohio, Eastern Division. No. 9771—Law.

United States of America, plaintiff, v. *Harry Coulby, defendant.*

[Memorandum.]

Westenhaver, District Judge: This is an action at law to recover $588.45, with interest and penalties thereon, alleged to be due as unpaid income tax for the nine months ending December 31, 1913, under the federal income tax law of 1913. A jury trial was waived by the parties and the case has been submitted to me for decision upon an agreed statement of facts. Briefly the facts are these:

The defendant, during the period in question, was a member of a partnership by the name of Pickands, Mather & Co. This partnership was then the owner of stocks in certain corporations which were taxable upon their net income under the provisions of section G of the income tax law. Dividends were declared and paid by these corporations upon the stocks held therein by the partnership. The defendant, in making return of his income for taxation, included as a part of his gross income his share of the profits of the partnership, but deducted therefrom such part thereof as was derived by or through the partnership from dividends on stocks in these corporations taxable upon their net income.

Later, on or about June 27, 1917, the commissioner of internal revenue examined the defendant's return and disallowed the deductions thus made and assessed the normal tax of 1 per cent. against the defendant on such deduction. The item of $588.45 represents that assessment.

The exact question presented for decision is whether or not a member of a partnership must include as a part of his net income subject to the normal tax such part of his income derived from or through a partnership which has been received by that partnership as dividends on stocks owned by it in corporations taxable upon their net income under section G of the federal income tax law of 1913.

Plaintiff's contention that profits thus derived are a part of the partner's net income, and subject to the normal tax, is based on the following paragraph of section D:

Provided further, That any persons carrying on business in partnership shall be liable for income tax only in their individual capacity, and the share of the profits of a partnership to which any taxable partner would be entitled if the same were divided, whether divided or otherwise, shall be returned for taxation and the tax paid under the provisions of this section.

An examination of the entire income tax law convinces me that plaintiff's contention is erroneous. Section B defines what shall constitute the net income of a taxable person; it includes his gains, profits, and income

derived, not merely from salaries, wages, or compensation for personal service, but also from business, trade, commerce, or sales or dealings in property, or the transaction of any lawful business carried on for gain or profit. This plainly includes such gains and profits derived from or through a partnership.

Section B also states what deductions shall be made from the gross income of a taxable person in order to ascertain the net income for the purpose of levying the normal tax. Among these deductions is the amount received as dividends upon the stock or from the net earnings of any corporation, joint-stock company, association, or insurance company which is taxable upon its net income.

Section G provides for the normal tax upon the entire net income of corporations. It expressly excludes partnerships therefrom. This net income of corporations is subject only to the normal tax, such as is levied on the income of any natural taxable person, and not to the additional tax provided for by subdivision 2 of section A. This income from corporations received by a natural taxable person is exempt only from the normal income tax, and not from such additional tax.

Taking these provisions as a whole, the paragraph of section D relating to partnerships above quoted must be considered and construed in the light of the general scheme thus outlined. No provision is anywhere made requiring a return to be made by a partnership upon its income. This is true notwithstanding section D requires copartnerships, having the control, receipt, disposal, or payment of fixed income of another person subject to tax, to make a return in behalf of that person and to deduct the same. This provision deals with the fiduciary relationship of guardians, trustees, executors, and so forth, having the possession and control of other persons' property; but, as regards an ordinary partnership and its ordinary business, the statement is true that no return is required to be made under the federal income tax law of 1913 by a partnership.

Partnerships are expressly excluded from section G, requiring returns and payment of the normal tax by corporations. If congress had intended that partnerships, as such, should be taxable upon their net income, the logical place to have so provided would have been in section G, and to have excluded from the net income of a natural taxable person, subject to the normal tax, that part of his income derived from a partnership just as is provided with respect to his income derived from a corporation.

This law, therefore, ignores for taxing purposes the existence of a partnership. The law is so framed as to deal with the gains and profits of a partnership as if they were the gains and profits of the individual partner. The paragraph above quoted so provides. The law looks through the fiction of a partnership and treats its profits and its earnings as those of the individual taxpayer. Unlike a corporation, a partnership has no legal existence aside from the members who compose it. The congress, consequently, it would seem, ignored, for taxing purposes, a partnership's existence, and placed the individual partner's share in its gains and profits on the same footing as if his income had been received directly by him without the intervention of a partnership name.

It follows from these considerations that legally the defendant's share of the gains and profits of the Pickands, Mather & Co., derived from corporations taxable on their net incomes, is to be treated as if the same had been received by him directly from the taxpaying corporations.

The contrary contention is based on a literal reading of the words, "the share of the profits of a partnership to which any taxable partner would be entitled if the same were divided, whether divided or otherwise, shall be returned for taxation and tax paid." This sentence follows language plainly ignoring the existence of partnerships for taxing purposes. Section B had already provided what should be regarded as net income in

language sufficiently comprehensive to include the gains and profits from business carried on in a partnership name. The words just quoted evidently apply only to the possibility that a partnership might not divide its gains and profits, but retain them in the firm name or business. It was to meet this possibility that these words were added, and not to provide an unequal and unique method of taxing a partner's gains and profits from a partnership.

The contention to the contrary is narrow and literal, even if not lacking in plausibility. It is a contention, however, contrary to the spirit and general policy of the act; it destroys uniformity and equality and should not be adopted unless required by the express language of the statute. In my opinion, the language of the statute does not so require; but, on the contrary, when the entire act is examined, it does give a right to the deduction.

Counsel for plaintiff invoke the legal principles that an exemption in a tax law must be clearly expressed and will not be implied; that power to tax will not be taken away unless the lawmaking power has done so in clear and unequivocal language, and that, inasmuch as uniformity and equality is difficult if not impossible of attainment in tax laws, the inequality which might result from the government's contention should not be permitted to control the language of the law. Numerous authorities illustrating these legal principles are cited. These principles are well settled, and I assume ample power in congress to have assessed defendant's income derived from a partnership in the manner contended for. It is my opinion, however, that congress has not done so.

Counsel for plaintiff call attention to the fact that the federal income tax law of September 8, 1916, now provides that members of partnerships shall be allowed credit for their proportionate share of partnership gains and profits derived from corporations taxable on their net income, and urge that this is a change of the law, and evidences a belief of the lawmaking body that the 1913 income tax law had provided differently. I do not agree with this contention. In my opinion, this provision was inserted in the 1916 act to put at rest the present controversy rather than to change the law, and is to be regarded only as a legislative recognition of the scope and intent of the prior law. The applicable authorities, in my opinion, are the following: *Bailey v. Clark* (21 Wall., 284); *Johnson v. Southern Pacific Co.* (196 U. S., 1); *Wetmore v. Markoe* (196 U. S., 68).

Judgment is rendered in favor of defendant. An exception may be noted on behalf of plaintiff.

JUNE 26, 1918.

Students' Department

Edited by Seymour Walton

(Assisted by H. A. Finney)

AMERICAN INSTITUTE EXAMINATION

ACCOUNTING THEORY AND PRACTICE

Part I

In regard to the following attempt to present the correct solutions to the questions asked in the examination held by the American Institute of Accountants in May, 1919, the reader is cautioned against accepting the solutions as official. They have not been seen by the examiners—still less endorsed by them.

Problem 1:

A has agreed to sell to B the goodwill of the X. Y. Co. on the basis of three years' profits of the business to be determined by you on sound principles of accounting as accurately as possible from the following statement handed you by A. You are required to compute the value of the goodwill, but are not expected to take into account any considerations outside those presented by the statements.

Credits:	1st year	2nd year	3rd year
Sales (selling prices substantially uniform during period)	$638,400	$602,500	$564,000
Estimated value of construction work performed and charged to property	110,000	77,600	154,000
Appreciation of real estate upon revaluation by experts		80,000	
Profit on sale of Bethlehem Steel Co. stock			85,000
Inventory at end of period:			
Production material at cost	72,000	103,100	106,600
Finished goods at selling prices	76,500	114,000	150,000
	$896,900	$977,200	$1,059,600
Debits:			
Production materials purchased	$233,000	$252,400	$220,300
Production labor	50,850	61,400	60,900
Production expense (including depreciation)	66,750	69,300	70,300
Selling expenses	52,500	55,650	62,800
Interest	96,000	94,000	98,500
Cost of construction work	74,600	49,000	86,000
Inventory at beginning of period:			
Production material at cost	51,400	72,000	103,100
Finished goods at selling prices	54,900	76,500	114,000
	$680,000	$730,250	$815,900
Balance, being profit claimed by A	$216,900	$245,950	$243,700

Solution, Problem 1:

Since the goodwill is to be computed on the basis of sound accounting principles, it is necessary to eliminate from the stated profits any unrealized or extraneous profits which have been included in the profits claimed by A.

Doubtless the most apparent error is the inclusion of an unrealized profit on construction work during each of the three years. The amount of profits improperly claimed is shown in the following schedule.

Schedule 1

Statement of Unrealized Profits on Construction Work

	1st year	2nd year	3rd year
Credit: Estimated value	110,000.00	77,600.00	154,000.00
Debit: Cost	74,600.00	49,000.00	86,000.00
Unrealized profit	35,400.00	28,600.00	68,000.00

The profits must also be reduced by the amount of the unrealized appreciation of real estate which has been credited to income. The authority of experts may be sufficient evidence to assure the company that the real estate is worth $80,000 more than it has been carried on the books for, but it is by no means sufficient evidence to warrant a credit to income; and even if the real estate had sold at an increase of $80,000, this profit, realized in such a case, would not be a proper profit to include in the computation of the goodwill. Goodwill should be based on realized operating profit. For this reason the profit on the sale of Bethlehem Steel Company stock, $85,000, is also excluded from the profits upon which the goodwill is based. This $85,000 was realized, but it was by transactions extraneous to regular operations.

The following schedule shows the total unrealized and extraneous profits which are excluded from the goodwill computation.

Schedule 2

Summary of Unrealized and Extraneous Profits, Excluded from Goodwill Computation

	1st year	2nd year	3rd year
Unrealized profit on construction (schedule 1)	35,400.00	28,600.00	68,000.00
Unrealized profit on real estate revaluation		80,000.00	
Extraneous profits on sale of Bethlehem Steel Co. stock			85,000.00
Total	35,400.00	108,600.00	153,000.00

After deducting these excluded profits from the total profits claimed by A, the apparent profits from operations would be the amount shown in the following schedule.

SCHEDULE 3

STATEMENT ELIMINATING UNREALIZED AND EXTRANEOUS PROFITS

	1st year	2nd year	3rd year
Profit claimed by A—per problem	216,900.00	246,950.00	243,700.00
Unrealized and extraneous profits—per schedule 2	35,400.00	108,600.00	153,000.00
Apparent operating profits	181,500.00	138,350.00	90,700.00

These apparent operating profits, as claimed by A, are erroneous because of the valuation of the finished goods inventories at selling prices. It is imperative, therefore, to reduce these inventories to their cost value. In order to make this reduction, it will be necessary to ascertain the cost of production during each of the three years.

SCHEDULE 4

STATEMENT OF PRODUCTION COST

Production material:	1st year	2nd year	3rd year
Inventory—beginning	51,400.00	72,000.00	103,100.00
Purchases	233,000.00	252,400.00	220,300.00
Total	284,400.00	324,400.00	323,400.00
Less inventory—end	72,000.00	103,100.00	106,600.00
Cost of material used	212,400.00	221,300.00	216,800.00
Production labor	50,850.00	61,400.00	60,900.00
Production expense	66,750.00	69,300.00	70,300.00
	330,000.00	352,000.00	348,000.00

Having computed the cost of the goods manufactured during the period, the next step is to compute the selling price of the goods manufactured during the period. Working on the theory that the first goods received in stock are the first goods sold, it may be assumed that the inventory of finished goods at the beginning of each year is sold during the year. The remainder of the sales would, therefore, necessarily be made from goods manufactured during the year. Also the inventory at the end of the year would necessarily consist of goods made during the year. The selling price of the goods manufactured during the period is, therefore, computed as shown in the following schedule.

SCHEDULE 5

STATEMENT SHOWING SELLING PRICE OF GOODS MANUFACTURED EACH YEAR

	1st year	2nd year	3rd year
Sales	638,400.00	602,500.00	564,000.00
Deduct inventory of finished goods at beginning of year: goods sold during the year but manufactured during preceding year (selling price)	54,900.00	76,500.00	114,000.00

Selling price of goods manufactured and sold during the year	583,500.00	526,000.00	450,000.00
Add inventory of finished goods at end of year: goods manufactured during the year but not sold (selling price)	76,500.00	114,000.00	150,000.00
Selling price of goods manufactured during the year including goods sold and unsold	660,000.00	640,000.00	600,000.00

The next step is to compute the ratio of cost of goods manufactured during the year to the selling price thereof, in order to reduce the inventory of finished goods from selling price to cost.

Schedule 6

Computation of Ratio of Production Cost to Selling Price Each Year

	Cost price (Schedule 4)		Selling price (Schedule 5)		Ratio of cost to selling price
1st year	330,000.00	÷	660,000.00	=	50%
2nd year	352,000.00	÷	640,000.00	=	55%
3rd year	348,000.00	÷	600,000.00	=	58%

The cost value of the inventories of finished goods may now be computed by multiplying the selling price of the inventories by the rate per cent. representing the ratio of manufacturing cost to selling price applicable to each year.

Schedule 7

Computation of Cost of Finished Goods Inventories

	Selling price		% of cost to selling price		Cost
First year— beginning inventory	54,900.00	×	50%	=	27,450.00
First year— ending inventory	76,500.00	×	50%	=	38,250.00
Second year— ending inventory	114,000.00	×	55%	=	62,700.00
Third year— ending inventory	150,000.00	×	58%	=	87,000.00

While the apparent operating profits are shown in schedule 3, these profits are erroneously computed by reason of the overvaluation of the finished goods inventories. Overvaluing the opening inventory understates the profit, while overvaluing the closing inventory overstates the profit. The adjustment from apparent operating profits to true operating profits may be shown as follows:

SCHEDULE 8

STATEMENT SHOWING ADJUSTMENT OF OPERATING PROFITS BY REDUCTION OF FINISHED GOODS INVENTORY VALUATIONS FROM SELLING PRICE TO COST

		1st year	2nd year	3rd year
Apparent operating profit—schedule 3		181,500.00	138,350.00	90,700.00
Adjustment of inventory—beginning of year:				
Selling price	54,900.00			
Cost—50%	27,450.00			
Difference—add to first year's profit		27,450.00		
		208,950.00		
Adjustment of inventory — end of first year:				
Selling price	76,500.00			
Cost—50%	38,250.00			
Difference:				
Deduct from first year's profit		38,250.00		
Add to second year's profit			38,250.00	
			176,600.00	
Adjustment of inventory—end of second year:				
Selling price	114,000.00			
Cost—55%	62,700.00			
Difference:				
Deduct from second year's profit			51,300.00	
Add to third year's profit				51,300.00
				142,000.00
Adjustment of inventory — end of third year:				
Selling price	150,000.00			
Cost—58%	87,000.00			
Difference:				
Deduct from third year's profit				63,000.00
True operating profit		170,700.00	125,300.00	79,000.00

This statement of adjusted operating profits should be verified by the preparation of revenue statements for the three years.

SCHEDULE 9

THE X. Y. COMPANY
PROFIT AND LOSS STATEMENTS
COVERING THREE YEARS

		1st year		2nd year		3rd year
Sales		638,400		602,500		564,000
Deduct:						
Cost of sales:						
Finished goods beginning	27,450		38,250		62,700	
Production cost (sched. 4)	330,000		352,000		348,000	
Total	357,450		390,250		410,700	
Finished goods—end	38,250	319,200	62,700	327,550	87,000	323,700
Gross profit on sales		319,200		274,950		240,300
Deduct:						
Selling expenses		52,500		55,650		62,800
Net profit on sales		266,700		219,300		177,500
Deduct:						
Interest		96,000		94,000		98,500
Net profit for the year		170,700		125,300		79,000

The goodwill, computed on the basis of three years' profits, would be determined as follows:

SCHEDULE 10

COMPUTATION OF GOODWILL

First year's profit—schedule 9	170,700
Second year's profit—schedule 9	125,300
Third year's profit—schedule 9	79,000
Total—goodwill	375,000

This computation of the goodwill is subject to certain qualifications.

The problem says that the production expense includes depreciation. It may be that the depreciation has been overstated and hence the operating profits understated. This may easily have occurred if the company has used even a fair rate of depreciation, because it is carrying its construction and real estate at a figure which includes the profits. If the

company has applied a fair depreciation rate to this overvaluation, it has charged operations with an excessive depreciation and hence understated the profits.

It might be preferable to base the goodwill on the profits before taking interest into consideration. The question, however, does not limit the profits to the net results before excluding the interest. It might be better to adopt some other number of years' purchase and base the calculation on the net profit on sales on the theory that the purchaser might have ample capital to carry on the business and thus avoid the interest charges.

Problem 2:

Does the basis of three years' profits for arriving at the goodwill outlined in the previous question appear to you to be reasonable upon the facts disclosed to you? If not, what advice would you offer upon the question if A or B were your client?

Solution, Problem 2:

The basis of three years' profits for arriving at the goodwill does not seem a reasonable basis. The prospective seller of the business, however, does not seem to be in need of advice, as the sale of the goodwill for $375,000 in the circumstances which become apparent on making an analysis appears to be at a value far in excess of the real worth.

If A were my client I should investigate the interest charges. If I found that this interest was an allowance on capital I should call his attention to the fact that such interest is in reality profit and that he was understating his profit by the amount of the interest thus deducted.

Attention has also been called to the fact that the profits may be understated by reason of excessive depreciation charges, but it seems that from A's point of view the less attention is called to the overvaluation of the real estate and construction the better.

If B seriously considers purchasing a goodwill based on three years' profits, even after eliminating the unrealized profit on construction and real estate and the extraneous profit on the sale of stock and after reducing the inventories to cost, he is in serious need of advice.

It is a fundamental rule that goodwill cannot be fairly predicated upon declining profits. Where profits are reasonably uniform or are increasing and where they are sufficiently in excess of the normal return on the investment, three years' profit is not an exorbitant price. But the profits of this business have decreased from $170,700 to $125,300 and finally to $79,000, and goodwill cannot wisely be based upon profits which are declining with such regularity and rapidity. Even if it could be conclusively shown that the profits will remain at $79,000, the payment of $375,000 for the goodwill would be virtually a purchase of five years' profits.

The prospective purchaser should also give consideration to the fact that the sales are decreasing annually, the sales of the second year being only 94.4% of those of the first year, and the sales of the third being only 88.3% of those of the first year as shown in the following schedule.

SCHEDULE 1

SCHEDULE SHOWING DECREASE IN SALES

Year	Sales	Per cent.
1st	638,400.00	100.00
2nd	602,500.00	94.4
3rd	564,000.00	88.3

At the same time, the inventory has been increasing by leaps and bounds. The following schedule shows the inventories at the various dates, the rates per cent. being based upon the inventory at the beginning of the first year. It is significant, in the decline of sales, to note that the final inventory of production material is 207.4% of the initial raw material inventory, while the final inventory of finished goods is 316.9% of the initial finished goods inventory. A should certainly be asked to explain this increase.

SCHEDULE 2

SCHEDULE SHOWING INCREASE IN INVENTORIES

Date	Raw material	Per cent.	Finished goods	Per cent.
Beginning first year	51,400.00	100.0	27,450.00	100.00
End first year	72,000.00	140.1	38,250.00	139.3
End second year	103,100.00	200.6	62,700.00	228.4
End third year	106,600.00	207.4	87,000.00	316.9

Attention has already been called, in the solution to the first problem, to the fact that the cost of production has increased from 50% of the selling price the first year to 55% thereof the second year and 58% thereof the third year. Declining sales with rising costs of production do not offer an inviting prospect for a purchaser.

The rise in selling expenses should also give a prospective purchaser pause. The following schedule shows the increase in selling expenses during the second and third years. The selling expenses the second year were 106% and the selling expenses the third year were 119.6% of the selling expenses of the first year. Expressed in another way, the selling expenses were 8.2% of the sales of the first year, 9.2% of the sales of the second year and 11.1% of the sales of the third year.

SCHEDULE 3

SCHEDULE SHOWING INCREASE IN SELLING EXPENSE

Year	Selling expense	Increase over first year	Per cent. first year's expense	Per cent. of selling expense to sales of the year
1	52,500			8.2
2	55,650	3,150.00	106.0	9.2
3	62,800	10,300.00	119.6	11.1

Very large amounts of interest are listed among the debits, and it is impossible that more than a small proportion of them could have been actually paid out for loans with which to carry the current disbursements. Even if it required six months to collect anything from customers and all the money for materials, labor, expense and construction had to be borrowed for that time, the interest paid would indicate a rate of about 40 per cent. per annum. It must be, therefore, that there is either a very large bonded indebtedness made necessary by the large amount of capital required to be invested in fixed assets or that interest has been charged on invested capital represented by stock and that it has been actually paid to the stockholders as interest and not as dividends. It must have been paid out because, if it had been merely charged as an expense, it would have been credited to interest as a capital profit.

In case the interest is paid on a necessarily large bonded debt or capital stock, it is a factor in determining the goodwill, because the measure of the goodwill is the amount of profits in excess of a fair return on the money required to carry on the business. That the money tied up in permanent assets is required seems to be indicated by the relatively large amount spent for construction work each year. The problem gives no clue as to the interest. If the amounts charged represent 6 per cent. on invested or borrowed capital, the total of the capital thus represented must have been $1,600,000 for the first year, $1,566,667 for the second year and $1,641,667 for the third year. Based on these figures for invested or borrowed capital the rate of profit, including interest, earned would be as follows:

Schedule 4

Statement Showing Rate of Profit Earned on Invested or Borrowed Capital

	1st year	2nd year	3rd year
Capital—if interest is 6% of capital	1,600,000	1,566,667	1,641,667
Profit	......	......	......
Interest	96,000	94,000	98,500
Profit as in solution of problem 1	170,700	125,300	79,000
Total profit	266,700	219,300	177,500
Per cent. of total profit to capital	16 2/3	13.9	10.8

It is very doubtful whether a business making 16 2/3% on its capital, which is the best that the X. Y. Company has done, has any goodwill, and it is quite certain that it has no goodwill at all in view of the rapid drop to 10.8%.

I should call B's attention to the large amounts expended for what is called "construction work." In view of the steadily declining business and the steadily increasing expense, it would seem very unwise to put money into extensions of the fixed assets. The items should be thoroughly investigated, as it is extremely probable that they represent replacements

of worn out equipment and not new assets at all. In that case they should be added to the expenses, with the result of making a bad matter that much worse.

If B asked my advice I should tell him to invest his money somewhere else unless he was sure that he would be able to improve conditions materially, but that in any event he should not pay for any goodwill.

Problem 3:

From the following balance-sheet and data

(a) Prepare corrected balance-sheet in appropriate form for the information of stockholders and auditor's certificate thereto.

(b) Show statement of adjustments to profit and surplus.

PASSAIC FALLS WOOLEN MANUFACTURING CO.
Balance-sheet—June 30, 1918

Assets	
Land	10,000.00
Buildings (brick)	100,000.00
Machinery	150,000.00
Steam power plant	25,000.00
Treasury stock, common, 250 shares costing	20,000.00
Accounts receivable	50,000.00
Inventories June 30, 1918	75,000.00
Cash	20,000.00
	450,000.00
Liabilities	
Capital stock—common, par $100.00	125,000.00
Capital stock—preferred, 7% cumulative, par $100.00	100,000.00
Accounts payable	130,000.00
Undistributed earnings, June 30, 1917	60,000.00
Profits year ending June 30, 1918	35,000.00
	450,000.00

Adjust the figures in regard to the following:

(1) Land is appraised at $15,000.00 and is to be adjusted to that value.

(2) Give effect in the statements to depreciation of the wasting fixed assets for the year ended June 30, 1918, at rates considered fair.

(3) Dividends on the preferred stock have not been paid for years ended June 30, 1917, and June 30, 1918.

(4) Inventories are valued at $5,000.00 below cost.

Solution, Problem 3:

Taking up the adjustments in the order in which the items appear in the balance-sheet:

Land. The fact that the land has been appraised at more than its book value does not constitute a profit. The opinion of a real estate expert is not an available asset unless it is acted upon and the profit is actually realized by the sale of the land. It is absolutely contrary to sound accounting principles to put the increase in value on the books at all. However, the problem requires that it be done, and the only question is

as to what account shall receive credit. If it is credited to "reserve for land" nothing will be gained, since the net value will remain the same as before. We are therefore obliged to credit it to undistributed earnings or surplus. The proper treatment would be to make no entry at all, but to show the asset on the balance-sheet as "land (appraised at $15,000.00) .... $10,000.00."

Depreciation. It is difficult to fix rates of depreciation when nothing is known as to conditions. As a guess the rates are assumed to be 2½ per cent. on the brick buildings, 7½ per cent. on the machinery and 10 per cent. on the steam power plant.

Treasury stock. It is usually considered better to carry treasury stock at par. When such stock is bought at a discount, the discount is not a profit unless it is absolutely certain that the stock is worth par, a supposition that is negatived by the fact that it brought less in an actual transaction. The discount should be credited to "unrealized profit on stock." If the stock is sold, any excess above $20,000.00 received will be a credit to surplus as a realized profit.

Inventories. There is no reason given for valuing the inventories below cost. It is assumed that the market value is not lower than the cost. It is not a case in which the goods on hand are perishable and it is thought wise to provide against deterioration. This should be done by setting up a reserve against inventories and not by reducing the value of the inventories themselves. Putting the inventories on the balance-sheet at cost would add $5,000.00 to the profits of the current year, unless there had been a similar undervaluation at the beginning of the year, in which case the adjustment would be made by charging current profits with the undervaluation, crediting surplus and then crediting the current profit and loss, charging inventories.

Preferred stock dividends. Cumulative preferred dividends are not a liability to be placed on the books until they are declared. However, since they are a lien on the profits to be satisfied before the common stockholders can receive any dividend, it is imperative that their existence should appear in any balance-sheet submitted to stockholders, but no notice need be made of them in statements to creditors. This information is conveyed to the stockholders by dividing the surplus on the balance-sheet.

The adjustments to profit and loss and surplus would be made by the following journal entries:

Profit and loss	16,250.00	
Reserve depreciation buildings		2,500.00
Reserve depreciation machinery		11,250.00
Reserve depreciation steam plant		2,500.00
Inventories	5,000.00	
Profit and loss		5,000.00
To correct undervaluation.		

Land	5,000.00	
Surplus		5,000.00

To give effect to appraisal. This entry is made on positive instructions from the board of directors.

This involves a reduction of the profits for the year of $11,250, and an addition to surplus of $5,000.

The adjusted balance-sheet after transferring the year's profit to surplus would be as follows:

PASSAIC FALLS WOOLEN MANUFACTURING CO.
Balance-sheet—June 30, 1918

Assets:			
Fixed assets:			
Land		15,000.00	
Buildings (brick)	100,000.00		
Less reserve for depreciation	2,500.00	97,500.00	
Machinery	150,000.00		
Less reserve for depreciation	11,250.00	138,750.00	
Steam power plant	25,000.00		
Less reserve for depreciation	2,500.00	22,500.00	273,750.00
Current assets:			
Inventories		80,000.00	
Accounts receivable		50,000.00	
Cash		20,000.00	150,000.00
			423,750.00
Liabilities:			
Capital and surplus:			
Capital stock, preferred		100,000.00	
Capital stock, common	125,000.00		
Less treasury stock, 250 shares at $100.00	25,000.00	100,000.00	
Surplus, subject to past due unpaid preferred dividends, not yet declared	14,000.00		
Surplus available for other dividends	74,750.00	88,750.00	288,750.00
Reserve for unrealized profits in treasury stock			5,000.00
Current liabilities, accounts payable			130,000.00
			423,750.00

As nothing is said as to there having been any audit of the accounts, the only certificate to be given would be somewhat as follows:

"I hereby certify that I have examined the balance-sheet of the Passaic Falls Woolen Manufacturing Company, dated June 30, 1918, together with certain data pertinent thereto, and that I have prepared the above balance-sheet, which in my opinion is a correct statement of the condition at that date, but I assume no responsibility for the valuation of the assets.

C. P. A."

Problem 4:

It frequently happens that a corporation contracts to purchase property at an agreed price, which on the face of the contract is declared to be its value, and that by another clause in the contract, or by another contract, the vendors agree to provide, in addition to the property, a certain sum for working capital or even for free surplus.

It is sometimes maintained that this free sum so provided is a profit or surplus of the new corporation available for payment of dividends if the directors so determine.

Write a brief expression of your opinion as to the proper treatment of the sum turned back.

Solution, Problem 4:

It is unusual for a vendor to provide any sum "for free surplus" if by that expression is meant surplus available for dividends. In fact, if the contract so specified it would to that extent be void. Surplus available for dividends must be the result of accumulated earnings or of value acquired by gift or otherwise which causes a condition in which the valid assets are greater than the total capital and all liabilities. This case does not belong to either category.

The gift by the vendor is not a profit but is a reduction of the original cost of the property. Whether expressed in one contract or two, the agreement to "purchase property at an agreed price" is dependent upon the other agreement that the vendor shall "provide a certain sum." Usually the price paid for the property is the total capitalization of the corporation, and the gift of the vendor consists of a certain proportion of the stock which is put in the treasury and sold for the purpose of providing working capital. Since the transfer of the property has paid for the entire capital stock issued to the vendor, the stock returned by him is true treasury stock and can be sold at a discount without making the purchaser liable.

In recording the donation of the stock, the proper debit is to treasury stock. The logical credit would be to property, but the insuperable objection to this treatment is that it gives the lie to the original value as declared by the contract. If property was worth $2,000,000 and is at once reduced to $1,000,000 by the credit of donated stock, it is a confession that the smaller sum was its real value; therefore that the original capital was not fully paid for; and that the donated stock is not true treasury stock, since it has not been issued fully paid and been re-acquired by the company.

The proper treatment is to credit the amount to donated working capital, as expressive of the purpose for which it was given. Having been

once fully paid for, the treasury stock can now be sold at a discount and the cash proceeds can be used for the development of the property. During the process of development no clearing entries are made, but accounts are kept with discount on stock and with the various classes of assets and of expenses until development is finished or the treasury stock is all sold. Then the tangible asset accounts such as buildings, machinery, etc., are retained, but the discount and expense accounts are charged to the donated working capital account. The balance of the latter account, being represented by actual assets, is now a legitimate reduction of the property account. It is to be noted that the investment is not disturbed in value, since the reduction of property account is offset by the accounts of buildings, machinery, etc. Therefore no discredit has been cast on the original price for the property.

Problem 5:

In examining the affairs of a manufacturing concern you find, among the assets, finished goods inventory of $175,798.00 and ascertain that included in the above total is the sum of $50,000.00, covering goods deposited as collateral to secure notes which are included in the notes payable account. How would you treat this in a statement prepared for credit purposes? Explain why.

Solution, Problem 5:

The problem does not state whether the goods hypothecated are collateral for notes of more or less than $50,000.00. If the notes are for more than that amount the statement and balance-sheet should show as follows:

Inventory finished goods:		
Held as collateral by creditors	50,000.00	
On hand	125,798.00	175,798.00

If the note is less than $50,000.00 the first item should read:

Held as collateral by creditors for $45,000.00 (?)	50,000.00

The reason is that if the concern should go into bankruptcy, $50,000.00 of its assets would not be available for the payment of general creditors. If this were true of any large proportion of the assets it would make a decided difference in the amount of dividend that unsecured creditors could expect. Whatever tends to reduce the percentage available for the payment of creditors is important in a statement prepared for credit purposes and must be included, or the statement is not a true one.

Book Reviews

LIBRARY CATALOGUE, AMERICAN INSTITUTE OF ACCOUNTANTS. New York, January, 1919. 237 pp. Price $1.50 net; $1.65 delivered.

The *Library Catalogue* of the American Institute of Accountants is a worthy product. One may, without fear of exaggeration, give it a first place in the list of useful productions in the field of accounting literature during the past decade.

Ten years ago the charge was frequently made, and with a large measure of justification, that America had no business literature. Whether through shame or the incentive of gain may never be known, but certain it is that Americans, writers and others, have within the past ten years taken up the task of making books on business subjects with much energy.

Most of the books written since this campaign began have had something of good in them. A few of them would better have been left unwritten. Some of them have gained prominence because of the enterprise of the publishers. Others—many of considerable excellence—are almost unknown.

The *Library Catalogue* rises in its dignity and stands forth ready to refute the charge of inadequacy in our technical literature should any one, through ignorance, now dare to make it. The institute is an association of professional individuals. It has no commercial axe to grind. Hence the catalogue plays no favorites. The service of the institute is an unbiased, unprejudiced one. It lists, with regard to accounting and closely related subjects, most of the reputable literature extant.

The profession probably has failed to take full advantage of the literature of the present time, largely because of the fact that there has been no comprehensive source of information as to that which has been available. A person in search of a book or reference has been dependent upon the book-lists of publishers or sellers or the knowledge or memory of some one whose work has made necessary familiarity with such matters.

This situation need no longer exist, if one but knows of the catalogue of the institute, which is little short of a marvel in its completeness and lucidity. Unlike some catalogues it is exceedingly easy to use. In the words of the librarian: "To find books on a certain subject look for that subject as in an encyclopedia, and to find books by a certain author look for that author." Could anything be simpler? It is a pleasure to find that the method works out as planned, which is the test of a good catalogue.

Books of reference are playing an important part in the business affairs of today. Libraries, both general and special, are becoming almost indispensable to many organizations. There is available to business and professional men a mine of information which will help them to operate scientifically. There has been need for a guide which would lead them,

without too much trouble, to the information. Thanks to the American Institute of Accountants and its competent and clever librarian, the need has been supplied. John Raymond Wildman.

RESULTS OF MUNICIPAL ELECTRIC LIGHTING IN MASSACHUSETTS, by Edmond Earle Lincoln, *Houghton Mifflin Co.*, New York and Boston. 484 pp. $3.

No. XXVII of the Hart, Schaffner & Marx prize economic essays, is a study of the physical, financial and economic conditions of the municipally owned electric lighting plants of Massachusetts, compared with those of privately owned or company plants. It goes into most exhaustive details of construction, operation, management, rates, etc., and contains an ample number of maps and charts besides some 84 pages of statistical comparisons in the appendix. It will prove a veritable mine of information to the public accountant who may be called on for professional services in the matter of valuations or rates.

Public ownership of utilities has undoubtedly received a black eye in the United States as a result of the federal government's operation of the railroads and telegraphs, to say nothing of the control of other non-public enterprises, during the war. This does not discourage the advocate of public ownership; already he is complaining that it did not have a fair trial. This may be true, but before the nation embarks upon this troubled sea, it might be well for us to observe how public ownership of commercial undertakings has worked in smaller fields. Therefore a study like Dr. Lincoln's is a most timely and valuable contribution to a highly controversial question. If the author's final conclusion—

> "Whatever the sequel may be, this modest study, as well as most careful and unbiassed investigations, points to the conclusion that as a rule only the simplest and the 'well-seasoned' enterprises are at all suitable for public operation; and even these are in grave danger of becoming less efficient than they would be in private hands."

is unwelcome to the advocates of public ownership, they have their remedy at hand. All the data covering the operations of municipally owned electric plants in Massachusetts for over twenty years may be found in the book, from which the reader may draw his own conclusions "for better, for worse." W. H. L.

HOSPITAL ACCOUNTING AND STATISTICS by Wm. V. S. Thorne, *E. P. Dutton & Co.*, New York, 4th edition. $1.50.

With some new and improved forms for the superintendent's office and the addition of some twenty pages describing and illustrating forms for use in computing hospital statistics, there has been little change since the third edition of *Hospital Accounting and Statistics* was reviewed in these columns in January, 1917. As stated before, it forms a compact and useful manual for treasurers of similar institutions, and it will also be found useful to public accountants who may be called upon to audit such accounts or instal modern systems.

A clever idea is the form of "cash received account hospital earnings" for use in the superintendent's office. One side of the page contains carbon duplicates of two vertical rows of receipts numbered serially; the other is ruled for proper distribution of the receipts, the totals of the columns being posted into the general cashbook.

While the stickler for form may take exception to the arrangement of schedule 3, which combines capital and operating in one "surplus and deficit account," the accounts themselves are correctly set up on the books and the public accountant will find no difficulty in taking off proper capital and revenue statements. W. H. L.

PRINCIPLES OF ACCOUNTING, by WM. ANDREW PATON and RUSSELL ALGER STEVENSON. *The Macmillan Company,* New York. 685 pp. $3.25.

In some respects *Principles of Accounting* is unique. It is the first attempt we have seen to combine the study of accounting and economics in one volume, and we should say its success will depend mainly upon its welcome by those of the accounting profession who enjoy excursions into the realms of controversial questions. The authors state that the book is intended primarily as a text for general accounting courses in colleges and universities, but we venture to doubt if the average college student would get from it such grounding in theory and practice, especially practice, as would enable him to pass the American Institute of Accountants' examination. On the other hand, to an experienced practitioner of accountancy the book will furnish stimulating mental exercise and recreation. It is severely logical and is therefore heretical enough in spots to arouse the latent combativeness of the most jaded of conservatives.

For instance, take the question of appreciation which the authors maintain in chapters X and XX should be taken upon the books in ascertaining the profit or loss for each period. Such appreciation is to be applied to all accounts, capital and revenue, which may be capable of being affected by it. In the more elementary chapter X the proper entry to show appreciation of the inventory

Merchandise	$5,000	
Revenue from appreciation.......		$5,000

is given the unwary student, and in chapter XX we have a thoroughly logical defense of the theory and logically irrefutable answers to objections. In brief, the argument is that if depreciation as an element of cost is to be booked, then appreciation as an element of accrued revenue is equally allowable. Even the advocate of a middle course, that of actual cost or investment (original sacrifice) is not spared, as the authors point out the undeniable fact that the purchasing power of money also varies from time to time.

The time may come when, as the authors predict, there will be as little question of the propriety of considering appreciation as revenue as there is today of charging depreciation as cost, but in the meantime not many teachers of accountancy with the future professional success of

their students in view will care to instil this theory into their relatively immature minds. This feature of the book is to be regretted, for otherwise the theory of accounting is set forth on broad lines and on firmly grounded principles accepted by the whole profession.

In view of the inclusion of actuarial questions in the institute examinations the chapters on interest calculations are timely and valuable, though we should regard with something akin to awe any student who could remember all the formulæ given.

Altogether the authors have produced a most interesting and readable book, better suited, perhaps, to the professional accountant's library than to the class-room or general office. W. H. L.

ACCOUNTING AS AN AID TO BUSINESS PROFITS, by William R. Basset. *A. W. Shaw Company.* Chicago. 316 pp.

If we were about to open a school to teach elementary accounting and were to be limited to one text-book, we do not know a better one than *Accounting as an Aid to Business Profits.* Although the author modestly states at the outset—

> "This book is not a treatise on accountancy but is what the title connotes—an explanation of accounting and cost accounting for the business man and to the end that he may use his records to earn greater profits"

it is, nevertheless, a remarkably well worked out course in business bookkeeping from the elementary cash transactions to the complicated considerations of cost factors. If, as the author well says (p. 287), "the compelling idea in all accountancy is to learn how and why we make money—conversely, how and why we lose money," then this book deserves high standing in its particular field of accountancy. The busy professional may take exception to the superabundance of personal recollections and instances, which take up a good third of the volume, but they frequently serve to throw strong light on the principle or practice advocated or discouraged, and we know that the normal type of mind is more quickly influenced by the concrete than by the abstract.

For the average business man this book can be recommended. The startling conclusion of the federal trade commission that fully 100,000 American corporations were running at a loss, because they did not have proper methods of accounting and cost finding, should have awakened the business world to the necessity of education on this matter. Public accountants have long been quite aware of this condition and many have made attempts to enlighten business men; but whether through suspicion of our motives or too much technicality in language, we have not been over-successful. Mr. Basset writes in the plain, every-day English—or should we say American?—of the business-man, and it must be a hopelessly stupid one who cannot understand and grasp the principles and practice he describes. The more thoroughly the average business-man digests the contents of the book, the more likely he will be to avail himself

of the services of public accountants, because he will come the more quickly to realize the value of independent and impartial scrutiny of his affairs.

If there are a few (probably unintentional) jolts for the profession here and there, they may be good for us. Experienced practitioners are usually conservative, but enthusiastic neophytes not infrequently do injury to themselves and the profession by installing over-elaborate systems. To the latter is recommended serious and prayerful consideration of Mr. Basset's remarks on "over-accounting" (p. 2). W. H. L.

A. D. Macleod & Co. announce the opening of an office in San Bernardino, California, where they have taken over the practice of the late P. J. Dubbell.

Wilson & Heye announce the formation of a partnership succeeding the firm of L. W. Wilson & Co. with offices in the Chamber of Commerce building, Rochester, N. Y.

James A. McKenna announces the removal of his offices to 80 Maiden Lane, New York.

Gabriel Sanger & Co. announce the opening of offices at 10 High street, Boston.

Correspondence

"Some Phases of Capital Stock"

Editor, The Journal of Accountancy:

SIR: In the May issue of THE JOURNAL OF ACCOUNTANCY an article by William A. Paton appears, entitled *Some Phases of Capital Stock.* Its purpose, as stated in the first paragraph, is "to raise a question as to the propriety of certain doctrines and practices which at present find common endorsement among accountants." In this same paragraph we are also advised that the accounting profession either does not understand certain matters or in its treatment of them wilfully ignores certain important aspects of them; while further on the assertion is made that "present accounting practice and opinion are not always sound." It is our intention to examine some of Mr. Paton's arguments as we are of opinion that, in his presentation of them, he has ignored some of the most important principles involved and failed in his practical application of them, either wilfully or otherwise.

In this article, Mr. Paton says that writing off discount on stock against accumulated profits obscures two of the most important facts which a balance-sheet should show: (1) original proprietary investment and (2) accumulated earnings; and he concludes his argument on this point by remarking that stock discounts either should not be introduced into the accounts in the first place, or, if brought in, should be retained—otherwise the resulting balance-sheets will not show accurately the essential facts in which the investor or other person is interested. From these, and other remarks, we are convinced that Mr. Paton's conception of a balance-sheet is fundamentally wrong, and that he expects it to perform functions it was never intended to and cannot possibly perform.

A balance-sheet is a statement of the accounts of a concern as they exist at a particular moment of time and as regards capital and surplus accounts is not and cannot possibly be, as Mr. Paton's arguments assume, a history of them. If a balance-sheet states the accounts correctly as at the date which it bears, then that balance-sheet is properly drawn, irrespective of how these accounts originally came into being or of any changes that have subsequently taken place in them. All the information, therefore, which an investor or other interested person has any right to expect from a balance-sheet, as regards the undivided profits of a company, is the present amount, and in the hypothetical case given by Mr. Paton, the last statement is a strictly legitimate balance-sheet, subject only to the proviso that the transfer of the discount has been properly authorized, and to no other consideration. No stockholder has any right to read that the original amount invested was $100,000 or that the total accumulated profits during the company's life are $20,000, but only that these figures represent the present capital and surplus in the business. There are many ways in which the same result could be obtained.

Suppose for instance, the company decides to reduce its capital and eliminate this discount by complying with the necessary formalities and then immediately declares a 30% stock dividend. The position is exactly the same as before. Will Mr. Paton now contend that the surplus should still be shown as $50,000? Or is anyone deceived?

If a stockholder wishes to learn what change has taken place in the surplus since the presentation of the last balance-sheet he should refer to other statements usually furnished him and in a form that he can readily understand. It is not only unnecessary for him to examine the books of the company but seldom will he be allowed to do so. It is difficult to imagine any shareholder who would object to such a prudent step as that cited, unless he were annoyed at this $30,000 being made unavailable for dividends. The other interested parties, who would comprise chiefly the creditors, would certainly have no objections as this amount has now become part of the permanent capital and their faith in the company will be so much increased. This is the real point in the matter and it seems to have been entirely overlooked by Mr. Paton.

We agree with Mr. Paton that the purpose of a balance-sheet is to convey essential information—information as to the company's affairs at the date of the balance-sheet—but deny that the elimination of stock discounts is a practice inconsistent with this purpose. The elimination of stock discounts is a procedure to be condemned or upheld on its own merits, taking into consideration the particular facts relating to each individual case, and not because it requires that the figures in a balance-sheet be different from those in its predecessor. The purpose of a balance-sheet is served when it states the figures that were correct at the date when it was drawn.

Further, no conclusion as between years can be arrived at from a comparison of the undivided profits at different dates. Undivided profits are subject to many other disturbing factors beside stock discount. Dividends may be declared and paid, reserves of various kinds may be set up and provision may be made for sinking funds. It would be a very ignorant stockholder indeed who would form erroneous conclusions in the manner Mr. Paton fears. If it is desired to do anything to help such an unfortunate person we submit that it would be much more sensible, more practical, productive of greater good and less evil to draw a proper comparison for him than to deprive a capable and prudent executive of its legitimate powers or compel it to continue a state of affairs that has outlived its usefulness, for the purpose of perpetuating a fiction in the balance-sheet. All that is necessary is to furnish such stockholder with a clean cut statement of profit and loss appropriation and almost without exception this is done.

We are also at a loss to understand Mr. Paton's remarks that writing off stock discounts is not the only practice which disturbs surplus, and that this account is often subdivided into a dozen or more accounts scattered promiscuously among the items in the liability side of the balance-sheet. Surely Mr. Paton does not mean to say that the entire profits of a company are to be continually salted down in surplus account year after

year and never used for any purpose for fear of disturbing the "essential elements" of a balance-sheet. This is nonsense. No company conducts business with this end in view, and prospective shareholders for such a one would, we think, be hard to find. Most companies are in business for profits and these profits are expected to be used for the benefit of the stockholders. When profits are ascertained they are placed in surplus until it is decided how they are to be disposed of, and when this is decided they are logically taken out of surplus. Surplus account, then, is the balance of accumulated profits remaining unused at any time. If the management deem it wise to utilize any portion of these unused profits in any legitimate way or to set them aside for any particular purpose or purposes so that they will not be available for less needful ones, that is what they are there for, and the necessary consequence that these reservations will appear separately and specially labeled in the balance-sheet is no reason why such actions should be avoided.

Yours faithfully,

A. R. M. Boyle, C. A.

Winnipeg, Manitoba, May 15, 1919.

Walter Preston Kohr, Frank Clinton Brubaker and Raye Maynard Fisher announce the formation of a partnership under the firm name of Kohr, Brubaker & Fisher, with offices in Marshall building, Cleveland.

Frank L. Norris, F. Ernest Grubb and Edward A. Coughlan announce the formation of a partnership under the firm name of Norris, Grubb & Coughlan with offices in Finance building, Philadelphia.

Jay J. Livingston, Leon A. Paperno and Theodore Wachtell announce the formation of a partnership under the firm name of Livingston, Paperno & Wachtell, with offices at 55 Liberty street, New York.

R. W. Harvey and Egbert S. Harvey announce the formation of a partnership under the firm name of Harvey & Harvey, with offices in Davidson building, Charleston, West Virginia.

Leslie, Banks & Co. announce the opening of an office in Chicago in the Continental & Commercial Bank building and the appointment of C. A. H. Narlian as resident partner.

Charles H. Hubbell and Douglas S. Meaden announce the formation of a partnership with offices at 306 Hickox building, Cleveland.

E. F. Leathem & Co. announce that W. F. Vieh is now in charge of their office in Little Rock, Arkansas.

Samuel Newberger announces the opening of an office at 44 Court street, Brooklyn, New York.

Arizona C. P. A. Law

Following is the text of the Arizona law providing for the issuance of certified public accountant certificates. The law was approved March 12, 1919.

An act regulating the practice of public accounting; creating a board of accountancy; providing for the granting of certificates and the registration of certified public accountants; providing for examinations, the suspension or revocation of certificates issued by the board; prescribing the qualifications of persons entitled to certificates as certified public accountants; creating (defining) misdemeanors for a violation of the provisions hereof, and prescribing the punishment (penalty) therefor.

Be it enacted by the legislature of the state of Arizona:

Section 1. Any citizen of the United States, or person who has declared his intention of becoming such, having a place for the regular transaction of business as a professional accountant in the state of Arizona, and who, as in this act required, shall have received from the secretary of state for the state of Arizona a certificate of his qualifications to practise as a public accountant, as hereinafter provided, shall have the authority to style himself and to be known as a certified public accountant, and to use the abbreviated title C. P. A. for and during the term mentioned in his certificate.

Section 2. The governor shall, within thirty days after the taking effect of this act, appoint three persons, who shall constitute the board of accountancy, each member of which shall have been engaged in the reputable practise as a public accountant for a continuous period of three years immediately preceding the passage of this act, one of which shall have been in the state of Arizona. The persons first appointed shall hold office for one, two, and three years, respectively. Upon the expiration of each of said terms a member, who shall be a holder of a certificate issued under this act, shall be appointed for a term of three years.

Section 3. The board of accountancy, the majority of which shall in all cases have the powers of the board, shall determine the qualifications of persons applying for certificates under this act, shall make rules for the examination of same, which shall embody the following:

(a) Examinations shall be held by the board at least once in each year, at such times and places as may be determined by them. The time and place of holding such examinations shall be advertised for not less than three consecutive days, not less than thirty (30) days prior to the date of such examination, in at least two daily newspapers printed and published in this state. The examinations shall be in "theory of accounts," "practical accounting," "auditing," and "commercial law as affecting accountancy."

(b) Applicants for certificates, before taking the examination, must produce evidence satisfactory to the board that they are over twenty-five years of age, of good moral character, a graduate of a high school with a four years course, or have an equivalent education, or pass an examination to be set by the board; and that they have had at least three years' practical experience as professional public accountants.

(c) After the examination provided by this act the board shall, if in its judgment the applicants be entitled thereto, certify to the secretary of state the name and address of each person to be registered and to whom certificates of registration are to be issued. It shall thereupon be the duty of the secretary of state to register such persons as certified public accountants, and to issue them certificates of registration. The secretary of state shall be entitled to receive $2.50 for each registration and certificate issued, to be paid out of the funds accumulated by this act.

(d) In the event the board shall waive the examination of any person of competent age, as in this act provided, the name of such person shall likewise be certified to the secretary of state, who shall likewise register such person and issue such certificate upon payment of the fees required hereunder.

(e) All applications must be filed with the board of accountancy and be accompanied by the following fees:

For examination or recommendation for waiver of same as provided in section 4	$25.00
For registration under section 5	25.00
For issuance of certificate	10.00

Provided, however, that in the event any candidate fails to pass the required examination, he shall be entitled to take a second examination, within one year after the date of the examination at which he fails to pass, without paying a second fee.

(f) From fees collected the board shall pay all expenses incident under this act; provided, that no expense incurred shall be a charge against the funds of the state, and that the remuneration of each examiner shall not exceed the sum of ten dollars per day while engaged in their duties as such, exclusive of the necessary traveling and other expenses, to which they shall also be entitled; provided, however, that all moneys received in excess of the fees and expenses herein provided for shall be held by the treasurer of said board as a special fund for other like expenses of said board in carrying out the provisions of this act, but the said treasurer shall file a report with the governor at the close of each calendar year, showing the amount of moneys received during said year, the amount expended, and for what purpose, and also the total balance remaining in his hands, which report shall be subscribed and sworn to by said treasurer.

(g) The board shall annually elect from its number a president, secretary, and treasurer, and all certificates required to be executed for and on behalf of the board shall be certified over the signature of the president and secretary.

Section 4. The board may, in their discretion, waive the examination of any person of competent age, of good moral character, and who has been engaged in reputable practice as a public accountant for a continuous period of three years, one of which shall have been in the state of Arizona immediately preceding the passage of this act, or who has been employed as an accountant by reputable firms of accountants for a continuous period of five years immediately preceding the passage of this

act, one of which shall have been in the state of Arizona, and who shall apply in writing to the board for such certificate within six months after the passage of this act.

Section 5. The board may in their discretion, issue a certificate to the secretary of state, to the effect that any person who is the lawful holder of a certified public accountant's certificate issued under the law of another state which provided for similar registration, which established a standard of qualification as that required under this act, and upon the reception of such certificate, the secretary of state shall issue to such person a certificate of registration, which shall entitle the holder to practise as such certified public accountant and to use the abbreviation C. P. A. in this state.

Section 6. The board may revoke or cancel the registration of any certificate issued under this act for unprofessional conduct of the holder or other sufficient cause; provided, that written notice shall have been mailed to the holder of such certificate at least twenty days before any hearing thereon, stating the cause of such contemplated action, and appointing a day for full hearing thereon by the board; and provided further, that no certificate issued under this act shall be revoked until such hearing shall have been held or the opportunity for such afforded the person charged. In the event of the revocation, cancellation, or suspension of any such certificate, the board shall notify the secretary of state of its action in the premises, and the secretary of state shall note such order of the board upon the records kept in his office.

Section 7. If any person represents himself to the public as having received a certificate as provided in this act, or shall assume to practise as a certified public accountant, or use the abbreviation C. P. A., or any similar words or letters, to indicate that the person using the same is a certified public accountant, without having received such certified public accountant certificate, or without having received a registration certificate, as provided in this act; or, if any person, having received a certificate, as provided in this act, and having thereafter been deprived of such certificate by revocation, as herein provided, shall continue to practise and hold himself out as a certified public accountant, he shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be fined a sum not less than fifty dollars nor more than five hundred dollars for each offense, and each day such person shall so offend shall be deemed a separate offense. Nothing in this act shall be construed to prohibit any person from practising as a public or expert accountant in this state, but said act shall only apply to such persons as practise and hold themselves out to be certified public accountants.

Section 8. If any person practising in the state of Arizona as a certified public accountant under this act, or who is in the practice of public accountancy as a certified public accountant, or otherwise, shall wilfully falsify any report or statement bearing on any examination, investigation, or audit made by him, or under his direction, he shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be punished by a fine of not less than one hundred dollars nor more than

one thousand dollars, or shall be imprisoned in the county jail for a term not less than three months nor more than one year, or by both such fine and imprisonment for each time he may so falsify such reports.

Section 9. All laws and parts of laws in conflict with the provisions of this law are hereby repealed.

Section 10. This act shall be in full force and effect ninety days after its passage and approval by the governor.

Missouri Society of Certified Public Accountants

At the meeting of the Missouri Society of Certified Public Accountants held in Kansas City, June 13, 1919, the following officers were elected for the ensuing year: F. C. Belser, St. Louis, president; E. G. H. Kessler, St Louis, first vice-president; F. A. Wright, Kansas City, second vice-president; R. C. Brown, St. Louis, secretary; Edward Fraser, Kansas City, treasurer.

Los Angeles Chapter, California Society

At a meeting of the Los Angeles chapter of the California State Society of Certified Public Accountants on May 28, 1919, the following directors and officers were elected for the ensuing year: president, F. H. Hahn; vice-president, A. M. Loomis; secretary and treasurer, E. H. Spencer; directors, Reynold E. Blight and H. Ivor Thomas.

Certified Public Accountants of Massachusetts, Inc.

At the annual meeting of the Certified Public Accountants of Massachusetts, Inc., the following officers were elected for the ensuing year: president, Edwin L. Pride; vice-president, Hollis H. Sawyer; treasurer, Gerald Wyman; secretary, George Lyall.

Iowa State Board of Accountancy

At a meeting of the Iowa state board accountancy the following officers were elected for the ensuing year: Philip L. Billings, chairman; Albert H. Hammarstrom, secretary and treasurer. The third member of the board is John W. Peisen.

British Society of Incorporated Accountants and Auditors

The council of the British Society of Incorporated Accountants and Auditors has unanimously elected William Claridge, of Bradford, president, and George Stanhope Pitt, of London, vice-president for the ensuing year.

P. J. DUBBELL

We announce with regret the death of P. J. Dubbell of San Bernardino, California. Mr. Dubbell was a member of the American Institute of Accountants and of the Los Angeles chapter of the California State Society of Certified Public Accountants. He had been a public accountant for many years.

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Water Utilities Accounting*

By Will-A. Clader

A water company is engaged in the business of supplying a commodity which is a necessity. The very nature of its business requires it to be vested with certain privileges not enjoyed in common by all persons, to wit: the privilege of exercising certain rights in streets and public places. In addition, in most cases, a water company enjoys if not a legal at any rate a practical monopoly of at least a portion of the business in its particular field, so that the consumer is not free to select the persons from whom he buys his commodity. As a result of these conditions, the law has always conferred upon the sovereign power the right reasonably to regulate the service of a water company and the compensation it is to receive therefor. This right of regulation, however, carries with it the obligation to allow the utility to earn a fair return upon the value of the property used and useful in the business in which it is engaged.

The modern method of regulation is by a state commission vested with power to make rates and regulate service. In 46 out of 48 states, public service commissions have been established with more or less power of regulation over corporations, railroads and public utilities. Only Delaware and Utah are without such commissions.

In most cases the powers extend over the methods of accounting and of financing. These laws, excepting in the case of Massachusetts, are of recent enactment. The public utility law in Massachusetts was passed in 1886, the Wisconsin law in 1905. Practically all the others have been passed since that time, so the method of regulating the accounts, though well established, must be regarded as experimental.

*A paper presented at the tri-state meeting of accountants of Delaware, Maryland and Virginia at Baltimore, June 25, 1919.

It was early realized that intelligent and successful regulation cannot be obtained without proper accounting.

Investigation of water utility accounting methods disclosed that there were many systems of accounts in use and showed that common terminology and uniformity of practice in the accounting offices were indispensable to a clear understanding of many of the problems demanding attention. While a number of the water utilities had adopted for themselves comprehensive schemes of accounts which answered their own purposes, the final allocation of important items of expenditures remained entirely in the hands of the management, and afforded opportunity, to some extent, at least, of presenting to their stockholders and to the public reports that did not disclose the exact condition of the property or the results of its operation.

To correct the existing conditions, one of the first problems taken up by a new public service commission is that of promulgating and prescribing a uniform classification of accounts for the utilities under its jurisdiction.

On December 8, 1908, the railroad commission of Wisconsin prescribed a uniform classification of accounts for water utilities. The public service commission of Maryland issued an order under date of June 19, 1911, prescribing a uniform system of accounts for water companies, effective July 1, 1911. The commission in Nevada prescribed a system in June, 1911; New Jersey, effective January 1, 1913; Indiana and Montana, July 1, 1913; Idaho, January 1, 1914; Missouri, January 1, 1915; Maine and New Hampshire, July 1, 1915; Colorado, January 1, 1916; Pennsylvania, January 1, 1918; and Illinois, January 1, 1919. The bureau of inspection and supervision of public offices, state of Washington, prescribed a uniform classification of accounts for municipal water utilities effective January 1, 1916.

The director of the census presented on August 5, 1911, a scheme of uniform accounts for systems of water supply, arranged at a conference of and by correspondence between representatives of the bureau of the census, American Water-works Association, New England Water-works Association, American Association of Public Accountants, Ohio bureau of uniform accounting and others interested in the subject. This scheme of

accounts was reported to the American Water-works Association by its committee on uniform annual reports and accounts at its annual convention of 1911.

The report of the American Association of Public Accountants' committee on standard schedules for uniform reports upon municipal industries and public service corporations, which was published in the May, 1909, number of THE JOURNAL OF ACCOUNTANCY, describes in detail the instrumentality of the national association of professional accountants in the framing of a financial schedule for water-works.

The Pennsylvania and Illinois classifications are very complete. They represent combinations of ideas that have proved to be practicable in other states.

The subject is so vast and the side issues are so numerous that to compile an article on the accounting of water utilities that shall not be on the one hand quite unwieldy or on the other quite inadequate is a very difficult task. The temptation to elaborate minor points is constantly present, and in doing so the main thread of the subject is apt to be interrupted. It has seemed more important to present a comparatively simple view of the general structure of water company accounts than to attempt the detailed description of specific accounts, on which in fact many adequate volumes are already in existence. It would be impracticable within the limits of this paper to comment at length concerning schedules of accounts to which attention has been directed, but the classifications prescribed by Pennsylvania and Illinois may be said to be fairly representative of the methods prescribed by other commissions, and these observations on water utilities accounting will be confined, mainly, to the accounting procedure outlined therein.

The accounting orders issued by the various public service commissions which have jurisdiction over water utilities require that every water company carry on its books the accounts prescribed by the commission's uniform system, so far as they are pertinent to the facts and circumstances of the utility, and keep such accounts in conformity with the definitions and instructions contained in the accounting orders. It is also required that all accounts kept by the utilities must be kept by the double-entry method. This last requirement does not apply to purely statistical accounts.

The accounts are usually divided into two general classes, balance-sheet or indicant accounts and income accounts. A comparison of the balances in the balance-sheet accounts at any particular moment will, if the accounts have been properly kept, show the then existing condition of a corporation's affairs so far as such condition can be shown through the accounts.

These accounts with their subsidiary accounts are all that are necessary prior to the time when the corporation becomes what may be called a going concern.

When a corporation begins operations it requires an additional group of accounts in which to classify in convenient form the accounting history of the various changes it undergoes. Such accounts bring together or accumulate the accounts of the various incidents of the corporation's history and are called the income accounts. They are made up usually on a yearly basis and are closed into one grand account called corporate surplus or deficit, which ties together this group of accounts and the balance-sheet accounts.

The balance-sheet accounts are divided on the asset side into fixed capital, investments, floating capital and temporary debits; and on the liability side into funded debt, floating liabilities, reserves and capital stocks and surplus.

Owing to the great difference in sizes of utilities, it was found necessary to prepare separate schedules which would recognize this condition. By each following the same general principle it would permit comparison of operating results between the smaller and larger companies.

The utilities are divided into classes determined by the average total annual operating revenue. The balance-sheet accounts are kept by all utilities. The income accounts applicable to the class in which the utility is placed by its revenues must be kept. Any utility may use the accounts prescribed for the next higher class and may further divide any accounts into such subdivisions as are desired.

In Pennsylvania the general scheme provides 70 fixed capital accounts and 30 other asset accounts. There are 32 liability and reserve accounts. There are 107 income accounts with six divisions. Seventeen of these accounts are for operating revenues; 55 for operating expenses; 12 for non-operating revenues; 10 for non-operating expenses; 12 for income deductions; and one for

net corporate income, sometimes called the profit and loss account for the year. In addition there are four appropriation accounts, three surplus credit and 11 surplus debit accounts.

A uniform system of accounts requires that provision be made for all known contingencies; therefore only the accounts pertinent to the facts and circumstances are to be given consideration by a corporation. Many of the accounts may never be used, so the classifications are not burdensome, provided proper bookkeeping machinery is installed with which to keep the accounts. A voucher register, for instance, with columns for all the fixed capital and operating and other expense accounts, 147 in all, in addition to a few additional columns for other accounts to which there may be numerous charges, would be a cumbersome book. In consequence, the fixed capital and operating expenses accounts can be kept in sub-ledgers more conveniently, making necessary only two columns in the voucher register for those two groups of accounts. With a column for materials and supplies account, two blank columns and one for miscellaneous with amount and account columns, the voucher register would be only fourteen inches wide when opened. The vouchers containing charges to the sub-accounts of the fixed capital and operating expenses controlling accounts would be posted directly to the subsidiary ledgers.

The fixed capital of a utility, as defined in some of the classifications, "means its property, tangible and intangible, which is used in the collection and sale of water and has an expectation of life in service of more than one year." This includes all property which is directly possessed and used by the utility for business purposes and maintained in a fixed condition.

In the accounting for expenditures for construction purposes it is required that the first entry in regard of any particular thing describe it with such particularity as to permit its identification.

The fixed capital accounts shall show the actual cost to the corporation of the property, both tangible and intangible, acquired by the company. As the rates of a water utility are predicated upon the value of the property used for the convenience of the public, it is necessary that the fixed capital accounts be so kept as to allow an inventory and appraisal to be compared therewith.

Expenditures for plant and equipment in process of construction, but not yet ready for service, are charged to an account

entitled "construction work in progress." When the projects are completed, the cost is transferred to the permanent fixed capital accounts.

Property included in fixed capital is divisible into original plant and equipment, additions, betterments and replacements. Original plant and equipment is the fixed capital installed or acquired by the utility at the beginning of its regular operations and as provided and arranged for in the original plan of construction. The additions are land, structures and equipment added to those in service at the beginning of operations and not taking the place of any property of like purpose previously existing. Betterments are enlargements or improvements of existing structures, facilities or equipment, usually made with the object of rendering the properties affected more useful or of greater capacity than they were at the time of their installation or acquisition.

In auditing water companies, charges to fixed capital are often found covering a portion of the time of the superintendent and his clerical force. This cannot be deemed conservative business practice, inasmuch as the probabilities are that the overhead charges of a plant will not be decreased to any extent even though additions are not under way, and, therefore, the absorption of part of these charges when additions are in progress has the effect of reducing the operating costs, as compared with months in which no construction work is under way. Public service commissions have consistently ruled that there shall be no charges to fixed capital on account of engineering in construction except as such engineering shall be performed by others than the regular operating employees or officers of the company.

The cost of certain of such items as organization and water diversion rights is chargeable to intangible fixed capital, but the value is being lessened gradually by the lapse of time and should be amortized at a rate to extinguish the amount at the end of the life of the privilege.

When any part of the fixed capital is withdrawn or retired from service for any cause, its book value must be eliminated from the accounts. The accumulated amount of depreciation accrued on the thing retired is chargeable to the depreciation reserve account. The excess of original money cost over accrued

depreciation may be charged to surplus or to "property abandoned account" and amortized over a period of years by charges to extraordinary depreciation.

The modern tendency of public service commissions throughout the country is to prohibit the capitalization of brokerage and discount. Wisconsin is one of the few states in which it is permitted under the uniform system of accounts prescribed by a state commission. Most accounting orders contain uniform provisions forbidding the charging of discount on securities to capital account and requiring the amortization of discount during the term of the bond.

In the Illinois system a departure from the practice heretofore generally followed in public utility accounting classifications will be found in the provisions covering the accounting for plant and equipment expenditures of companies operating electric, gas or heating utilities in conjunction with the water utility. Such companies are permitted to carry in the appropriate accounts the cost of land, buildings and other property jointly used, without making an apportionment thereof to the different utilities. All property expenditures that can be properly segregated as between utilities must be so treated and only those for which there exists no accurate basis of division are covered by these provisions.

When capital stocks and bonds of a utility are reacquired in circumstances that require that they shall not be treated as cancelled or retired, the accounting orders provide that the difference between the par value and the cost of reacquisition be debited or credited to surplus, as should be done also in the case of any amounts carried in the discount and premium accounts relating to such securities.

In many states whose utilities are regulated capital stocks may not be sold for less than par. In the Illinois classification, however, an account "unextinguished discount on capital stock" is prescribed and "this account shall include the total of the net debit balances, if any, in the discount and premium accounts for the several classes of capital stock."

In Idaho an account "dividends accrued" is prescribed and "to this account may be credited at the close of each month the amount of dividends accrued on preferred and common stocks during such period at the rates of dividend payments established by the corporation." It is impossible to conceive how any one

familiar with corporation accounting would make the mistake of setting up dividends as a liability before they have been declared.

Workmen's compensation and liability insurance when the risks are not carried by the company should be computed monthly on the payroll at the rates in the policy. A journal entry should be made charging the proper account and crediting prepaid insurance until the advance premium is consumed, when the account "insurance accrued" should be credited in order to show the liability of the corporation for such insurance. When the additional premium is paid the insurance accrued account will be charged. Care must be exercised to charge "insurance during construction" in the fixed capital group of accounts with the insurance on the construction payroll, as this is purely part of the cost of making the additions and betterments to the plant of the company. Operating expenses should be charged with only the insurance on that portion of the payroll applicable to the operating expense accounts.

Two water classifications cover the important matter of contingent liabilities—those of Illinois and New Hampshire. It is required that "contingent assets and liabilities shall not be included in the body of the balance-sheet statement, but shall be shown in detail in a supplementary statement accompanying the balance-sheet statement." The definition given is that "contingent liabilities include items which may, under certain conditions, become obligations of the company, but are neither direct nor assumed obligations at the date of the balance-sheet."

A statement of the results of operations is called the income account. It includes the revenue accounts, the revenue deduction accounts, i. e., the operating expenses (including depreciation), taxes and uncollectible bills, and the income deduction accounts, i. e., bond and other interest, rents and other contractural payments. The excess of total income over total deductions is the net corporate income. The excess of total deductions over total income is the net corporate loss.

The operating revenue accounts of a water utility are those in which are recorded for each fiscal period the amounts of money which it receives or becomes entitled to receive for sales of water and for other services which it renders in conjunction with the operation of its water system.

Water rates are fixed by meter measurement or by flat rate based on frontage, number of rooms in the building and the facilities used by the consumer, such as sprinkling, faucets, bathrooms, etc. The flat rate method is generally used, but privately owned companies and municipally owned plants are rapidly resorting to meter rates.

The charges to consumers on a meter basis are handled in the accounts in the same way as in electric light, power and gas companies, with practically the same records for recording income.

Flat rates as a rule are paid in advance during different periods of the year, so the income not earned must be set up on the books as a liability in an account called "service billed in advance" in the Pennsylvania and Illinois classifications; "revenue of future periods levied in advance" and "unearned revenue" in others.

Some water companies read the meters quarterly. When this is done and the accounting period is the month the amount of revenue estimated as accrued during the month for water furnished to consumers for which bills have not been rendered is charged to "unbilled water service" and credited to revenue.

Merchandise and jobbing are distinct parts of the water business for its promotion. The revenue obtained from this branch of the business is an operating revenue and is so classed in the Illinois scheme of accounts. In the Pennsylvania classification and in many of the others it is listed as a non-operating revenue. This is only one of the many inconsistencies in the various classifications. The profit is generally determined without applying the proper proportion of the general overhead expenses; consequently the so-called profit should be included in the revenue accounts from which the total operating expenses are deducted. It is advisable to subdivide the merchandise and jobbing revenue account into two accounts, one for the sales and one for the expenses, to eliminate the necessity of analyzing the account when the gross business is to be determined. This is a fundamental principle of accounting overlooked in the majority of the classifications.

The operating expense accounts are those in which are recorded for each fiscal period the expenses of operating the water system, the expenses of maintaining the property used in the water operations, the expenses of collecting the water revenues, the expenses

of accounting for the water transactions, the general and supervisory expenses connected with the water transactions and all other expenses incident to the operating revenues.

Depreciation can be referred to herein only in a general way. The American Water-works Association appointed a committee on depreciation and received from it a most comprehensive report which was read at the 1917 annual convention at Richmond, Virginia, and published in the March, 1919, issue of the *Journal* of that association. In this report the fundamental principles of depreciation are given recognition by those experienced in water-works operation. In the report it is stated that "it is a well-recognized principle in the operation of public utilities, that the investor, whether a private corporation or a municipality, must be allowed to keep the original investment and its additions intact. Unless this principle governed, it would be impossible to secure capital for plant additions. It is necessary, therefore, to allow earnings to be realized which will pay all ordinary operating costs and make good all of the other losses of value above described, and, in addition, earn a fair net return upon the investment.

It was found that provision for caring for depreciation should be as follows:

First: provide for all ordinary, more or less continuous maintenance as an ordinary operating charge.

Second: create, where possible, a separate reserve fund for depreciation, sufficient to cover all losses in value other than those covered under ordinary maintenance. Such fund should earn interest and is subject to withdrawal for replacement when needed from time to time.

Third: test the adequacy of the reserve fund by careful technical appraisal and review its sufficiency once, say, every few years, and adjust its annual increment as may be necessary.

Many engineers are hopelessly at variance as to the method by which the principles of depreciation should be applied. One writer who has acted as commissioner, auditor, appraiser or witness in many appraisals of public utilities, for purchase, fixing values of property for bond issues or for rate making, says that "when engineers cannot agree and the courts cannot agree on a uniform method of figuring depreciation or present worth of public utilities property, it is evident that the subject is profound and its solution by no means obvious or easy," and also that "at

no time has he felt that he so thoroughly understood the subject of depreciation as to be absolutely secure in his conclusions."

None of the classifications prescribes the method to use in calculating depreciation. The sinking fund and straight-line methods are regarded as best and simplest in practice. The accounting instructions seldom go further than to require that "every public utility shall carry a proper and adequate depreciation reserve to cover the full replacement of all tangible capital in service. There shall be opened a depreciation account to which shall be charged monthly, crediting the depreciation reserve, an amount equal to one-twelfth of the estimated annual depreciation of the tangible capital in service of the utility." The charge is, therefore, based on a rule determined by the utility. Such charge should include the amount estimated to cover those ordinary losses suffered by the utility's structures and equipment from wear and tear not covered by current repairs; those extraordinary losses sustained by such structures and equipment from obsolescence or inadequacy due to age, physical change or supersession resulting from new inventions, discoveries, change in popular demand or requirements of public authorities; and those losses which result from the destruction of such structures and equipment by those extraordinary casualties to which the principles of insurance are not applicable. It should be intended to cover the estimated lessening in value of the property due to wear and tear, decay or gradual decline from natural causes, inadequacy, obsolescence, etc., which at some time in the future will require the abandonment or replacement of the property in spite of ordinary current repairs.

The rate of depreciation depends on the useful life of the property. It can be determined only when the life and cost of the property are known. The following rates are used frequently when wear and tear are made good by operating maintenance:

Large reservoirs	1%
Small reservoirs	2%
Cast iron pipe	1%
Wrought iron pipe	2%
Wood pipe	2%
Standpipes, concrete	2%
Standpipes, wood	3%
Valves	2%

Hydrants	2%
Meters	4%
Pumping equipment	4%
Steam engines	4%
Boilers	5%
Electric generators and motors	4%
Filter plants	3%
Buildings	2%
Laboratory equipment	10%

For convenience many utilities calculate depreciation upon the balance of the fixed capital accounts at the beginning of the fiscal year, ignoring the installations during the year. Depreciation begins when a unit of equipment is put into service, and charges covering it should begin with the date when the item of fixed capital is installed.

Accountants acknowledge that to determine the amount of actual depreciation of a water company's property presents difficulties and calls for superior capacity founded upon scientific attainments and broad and exact experience. To solve the many and complex questions involved there is required the most competent, comprehensive and judicial study and treatment. The facts are to be learned by expert examination of the plant itself, having in mind physical decay, obsolescence and inadequacy. It is impossible to ascertain the true earning capacity of a company without providing for this element of cost. Any declarations to the contrary violate the sound principles of economy, the decisions of the courts and the judgment that dictates prudence in the operation of a water company.

The supreme court of New York sustains this contention. It upholds the doctrine when saying that "the net income of a corporation for dividend purposes cannot be determined until all taxes, depreciation, maintenance and up-keep expenditures have been deducted. Otherwise the dividend is not paid from the earnings, but by a depreciation of the capital account."

Pennsylvania seems to be the only state which apparently provides in its accounting order on water utilities that the depreciation reserve account shall be treated on the balance-sheet as a deduction from fixed capital. This is the proper method according to preponderance of accounting authority, although it is not the uniform practice of the accounting profession. In the Knox-

ville Water Company case it was stated that such reserves are set aside from earnings for a specific purpose and are not intended to be considered as a deduction from property accounts; that they are intended to take care of a certain class of events in the future and have no bearing upon investment in property as reflected in the capital accounts; and that they represent the liability created against the company and to the public to insure the maintenance of adequate service which it is the duty and also the right of the company to provide.

Water utilities usually maintain depreciation funds only when required by law to do so or in compliance with mortgage obligations. When required by law to maintain such a fund, moneys belonging to it may be expended for new construction, extensions or additions to property, or for other authorized purposes, and the amounts so used are considered as loans made by the fund and interest is charged thereon. Bookkeeping entries must be made accordingly, namely, debit "current cash," credit "depreciation fund cash"; debit "loans from depreciation fund," credit "borrowing from depreciation fund—cr."

Some of the laws require that the commission shall prescribe the forms of all books, accounts, papers and records to be kept, and the utility is required to keep and render its books, accounts, papers and records accurate and faithful in the manner and form prescribed by the commission and to comply with all directions of the commission relating to such books, accounts, papers and records. Indiana requires this, but in Wisconsin, with the same powers, the commission has not prescribed the forms of all books, accounts and records to be kept. Where the utilities are able to devise their own system of keeping the required records in satisfactory manner, the commission has not insisted on the installation of the forms which it might favor. However, in many cases that commission has been called upon actually to install accounting systems. In such cases it has required the utilities to put in forms actually prescribed by the commission. The Pennsylvania commission devised some forms for the guidance of the utilities, but their use was not mandatory.

Observance of the rules and regulations prescribed in the systems of accounts of public service commissions is generally

obligatory upon all persons having direct charge of the accounts of the utilities concerned and such persons are held responsible for their proper application.

In the main the accounting problems of one state are the accounting problems of all and can be finally resolved only through the combined experience of all. The commissions' accounting systems, however, leave much to be desired in their practical application. This is chiefly due to lack of uniformity.

Consideration should be given to a nation-wide standardization. It is not too much to hope, therefore, that some time there will be a complete standard classification for water utilities, municipally and privately owned.

As stated by Carl H. Nau, "the chief reason for the standardization and uniformity of accounts in any industry is the opportunity it affords for a comparison of the results of operation of the various units of the industry. This possibility of comparison is of advantage, not only for the purpose of public regulation, but the benefits accruing to the management of the plant, whose accounts are in conformity with all other plants engaged in substantially the same operations, are very great."

Some Reflections on Cost Accounting

By J. Paul Suter

Somewhere back in the dim ages, a man with a quill pen sat in front of a sheet of foolscap and reckoned the cost of the thing that he had made. Or was it a man with a stylus, before a tablet of wax? Or one with a reed in his hand and a papyrus leaf, picked on the banks of the Nile? Or perhaps a hairy, skin-clad man with a flint chisel, cutting pictures into a stone?

Whoever he was, or whenever he was, he has his memorial in every factory where things that are made are reckoned in figures. He started something. He was the first cost accountant. Peace to his ashes.

Since his time, we have traveled a long way. We know more about most matters than he did. We have systems of figuring that are far in advance of anything ever done with a flint chisel or a reed or a papyrus leaf. Yet in cost accounting some of us have just his point of view. Though he would not have expressed it so, he thought that costs existed solely in order to determine selling prices; and some of us think that, too!

The old monk whom we credit with the invention of double-entry bookkeeping probably knew better. He was aware that costs are valuable in arriving at selling prices; but he knew, too—he must have known—that costs are necessary to price inventories, so that men may learn whether they have done business at a profit or at a loss.

His knowledge ended there. We have the advantage of him—some of us have. We agree with the first proposition and the second; and to them we add a third: that a real cost system should be an instrument of precision in the hands of the manufacturer to show him where his costs are high, and why. When we have learned that, our feet are set firmly on the highway which the man with the flint chisel trod; but our faces are turned away from him—we are going forward.

"A science teaches us to know; an art, to do." Since the days of the primitive cost man, cost accounting has become both a science and an art. It has its principles, as undeviating as the laws of Nebuchadnezzar, and as susceptible of diverse interpreta-

tions in the minds of various authorities. In some industries—for example, steel and the textiles—it is as highly developed and responsive as a piano. In other, newer industries, the golden age of cost accounting lies before. Yet, regardless of the type of industry, without respect to diversity of product, in spite of various theories among accountants, certain principles are true of cost accounting as a whole. It is successful in so far as it observes these principles. When they are disregarded, to that extent it fails.

Up to this point most cost accountants are in hearty accord. They agree that there are "certain principles." They are strongly of the opinion, also, that their observance is important and their neglect disastrous. Requested to name the principles, however, they exhibit a startling variety of beliefs; and to support those beliefs, they refer to a number of "authorities." Unfortunately, there is no single authority whom they all revere, and the authorities they individually acknowledge disagree with one another. It is a sad state of affairs. In view of it, all that can be attempted in this article is to state some principles, very diffidently, with the reasons why they are believed to be true. If nothing else comes of them, they at least may start an argument.

1. The first article in our creed, then, is that the cost system should be part of the general books of the company. That is to say, it should not be merely a statistical system nor a system of estimating, but it should balance to the cent with the books. The very starting point in costs should be the thought that so much money has been spent for material, so much for labor, so much for overhead, and that this must be accounted for. In the last analysis, all cost expenditures are inventory items. The cost system is a way of following through these expenditures from raw to process materials, thence to finished goods and out into the cost of goods sold. If the system is not part of the books, the engine is on one track and the cars are on another.

At this point, the man with the quill pen registers his first objection. He rises to remark that the cost system can't balance with the books, because often it is necessary—in machine shops, for example—to know the cost of each job as soon as possible after it is finished. To that end, he explains, the direct labor is applied to the material, and a percentage is added for overhead,

thus making up the total manufacturing cost. The overhead tariff, being based upon past experience, cannot agree with the books, except by an unlikely chance.

All this is true, even to the necessity for arriving at quick costs of certain jobs—true with this reservation: that any plan for arriving at figures in advance of the facts is not a cost system, but a system for estimating. In the instance cited above, the labor and the material costs may be actual, but the overhead is no more than an estimate. The correct overhead chargeable to a particular job cannot be determined until the expenses for the month or other cost period are obtained and apportioned over the various jobs.

Probably before the price for the job in question is quoted to the customer, an estimate is made which embraces approximations for all three elements of cost: material, labor and overhead. Upon the completion of the job, it is possible to obtain material and labor costs exactly; but the overhead still is an approximation —and it will have to remain so until the monthly distribution of operating expenses discloses what proportion of the latter applies to the job. Concerns which have no manufacturing cost system never make this distribution at all. Yet is it not essential to proper control of a business? It not only provides a complete check of all estimates made for the cost period, but it enables the accountant to determine precisely what profit was realized on the work performed.

There is another reason why the cost system should balance with the books. Costs are used to price inventories. We are told by the authorities (this is one point on which they do agree) that inventories should be carried at "cost or market, whichever is lower." Presumably in most going concerns cost is the lower of these two standards. But cost is—what things cost. And they cost what is paid for them. Usually, we pay money. We carry our records of such payments on the books. How can we prove that our detailed cost figures agree with our cost payments, if the system does not balance with the books? The accountant whose costs do not "tie up" to the cent with his ledger is in danger. There is no real difference of quality between him and the paying teller who fails to balance his cash. He is in the "quill pen" stage; and in these days of typewriter, adding-machine and aeroplane, the field for quill pens is narrowing rapidly.

2. The second point follows logically upon the first. It is not enough that the system should be part of the books, and that it should find its way, at length, into the general trial balance. If the costs are built up step by step, as they should be, an error in the final balance might well have its inception at the very beginning of the computations, which would necessitate the redoing of much work. A practical system must obviate this possibility, or, at any rate, reduce it to the minimum, by providing all practicable checks and test balances along the line before the final costs are obtained.

Too much emphasis cannot be laid upon the importance of this feature. Not many years ago, a budding clerk in the office of a large steel concern provided an illustration of the point which still lives in that particular accounting department. In this office were kept the manufacturing ledgers for a dozen mills, producing everything from pig iron to the finest kinds of wire. The pig iron made in the two or three blast furnaces was shipped to the steel mills, there to be changed into blooms and billets, and these products, in their turn, went to other mills for transformation into rods and finally into wire. Since all these inter-mill shipments were made at cost, it is clear that any error in the blast furnace figures would have far-reaching effects.

The error which the young clerk committed was very simple. He merely charged the coal for number one blast furnace to number two furnace, and *vice versa*. Thus transposed, the pig iron costs went on their way, through blooms, billets and rods to wire. Finally, just as the fine wire figures were being completed, the error at the blast furnaces came to light. Its correction occupied twenty angry bookkeepers for a day.

No argument was necessary in that office in favor of the proofs along the line adopted shortly after this incident.

The fool-proof system has yet to be invented. The nearest approach to it is the system in which any serious error is caught automatically, before it has caused grave delay.

3. The third article in our creed is a truism, and yet it must be said—a good cost system must admit of accurate distribution over the various manufacturing departments. Correctness in total is not enough. If the business is divided into departments—and nowadays few are not—the total amount of money apportioned to the costs of each department must be substantially

correct. Direct costs should be applied directly. Indirect expense should be distributed upon the best obtainable factor; and that factor must take into consideration the fact that various expenses differ in kind. Steam is one thing; electric power quite another; and the salary of the general manager should not be distributed upon the same basis as either of them.

The nature of these factors, of course, is a favorite battleground of the authorities, yet sufficient agreement can be obtained for all practical purposes, and there is no excuse for slipshod thinking or careless conclusions upon this vital point.

4. Even accuracy by departments is not enough. As a rule, we do not sell departments—unless we are going out of business. We sell specific products. Our cost system must be so arranged that we can determine in detail our costs on those products.

In the current issue of almost any popular business magazine can be found at least one absorbing short story of the manufacturer who thought he was making money because one or two products were carrying the load, while all the others were losers.

There are just three things to do with a persistently losing product: raise the selling price, lower the cost or stop making the goods—and an intelligent decision with regard to at least the latter two of these courses must be based upon accurate knowledge of costs.

An instance is recalled of a certain manufacturer whose cost system, once he had it running smoothly, demonstrated to his consternation that the only months in which he had made money on one of his most widely sold products were those in which his returned goods exceeded his sales; for when the articles came back, they were put into stock at their inventory value, which (as his costs proved) really was greater than the selling price. For some time, he had suspected this inaccuracy in his estimated costs, but had consoled himself with the theory that the large volume of the product in question so cut down his overhead on other lines that it indirectly resulted in a profit. The fallacy of that reasoning was very promptly revealed by his cost system.

"Where is the fallacy?" inquires our brother with the quill pen. "Large production does cut down the overhead per unit, thus decreasing costs and, all else being equal, increasing profits. Up to this point, is not the manufacturer's reasoning sound?"

To this point, yes; but only to this point. If the total decrease in his other costs because of the greater volume obtained through the manufacture of this one losing product be more than the loss on that product, then, of course, he has done well, and nothing is wrong with his argument. He is in the position of the steel producer who dumps his surplus product on the export market at a price little above the actual direct cost of labor and material and below his quotations to the domestic trade. The steel magnate is safe as long as he has made sure of his profit on the domestic sales. Then, whatever he can get above the direct out-of-pocket cost for the export goods is clear gain.

To do this sort of thing, however, requires a precise knowledge of one's actual costs, which is just what the man with the quill pen does not possess. Without such knowledge, the loss on the favored lines is far too likely to exceed any possible gain from quantity production.

It is not sufficient to be sure that a certain department is making money. The surety should extend to every article produced in the department. That condition can be effected only by the right kind of cost system. Lacking such a system, with some articles making a profit and others losing, the day is bound to come when the sale of the profitable products will fall off, and suddenly, inexplicably, the department will begin to run behind. And even if that day never does come, why should a man who is not doing business solely from motives of philanthropy persist in selling below cost?

5. A satisfactory cost system should permit of analysis. Theologians maintain that a man must be able to give reasons for the faith that is in him. The same is true of costs.

Every live selling organization is continually attacking the manufacturing end of the business because the costs of certain products are too high. The manufacturing head is likely to have a stock alibi. The costs really are reasonable, he will argue, but the accounting department's figures are wrong. Too large a factory overhead has been added, or perhaps the labor is incorrect.

Mere assertions by the accountant that his figures portray a true condition seldom carry conviction. He must be able to prove that he is right.

Without the proper cost system he cannot do this. He can at best only point out certain indications or approximations,

whereas he should be able to trace the way back from the cost figures as laid before the executive to the very time-cards on which the labor charges originated, the requisitions ordering the material which found its way into the finished product and the component parts of the factory overhead.

The scientific cost system is a creation of logic, and, as logic is built up by steps, he who knows the system should be able to trace the steps.

6. It is evident that the costs should be accurate. What is not so evident is that they should possess the degree of accuracy most advantageous and logical for the particular business. The builder of lighthouses very naturally wishes to know the precise cost of every lighthouse he erects; but it would be absurd for the rubber manufacturer to keep separate figures on each automobile tire or piece of airbrake hose.

Under certain conditions, absolute accuracy per unit is neither practicable nor desirable. What is needed may be the average cost per unit of all product of a kind produced within a given period. In another industry, perhaps nothing but an absolute cost will fulfill the requirements. The accountant must define the term accuracy in the light of the specific conditions confronting him. It means one thing in the machine shop and quite another in the fine wire department.

Let not the "man with the quill pen" seize upon this to charge us with inconsistency. Somewhere in every cost system and in every accounting plan, however vast, there must be a limit to accuracy. It may manifest itself in the decision to carry prices per unit to three decimal places, rather than to four or five; it may be apparent in the rule of a great bank, that discrepancies in cash of ten cents or less, which are not found after a certain amount of checking, be charged to over and short account; but a limit there must be. The wise accountant is he who draws the line fine enough for reasonable and serviceable accuracy, yet not so fine as to exceed the dictates of common sense.

7. This last caution naturally leads to another. Though the cost man is, on the one hand, sometimes inclined to be too vague in his findings, and to generalize too much; on the other hand, he often is tempted to "wasteful and ridiculous excess" in the matter of detail.

Every figure put upon paper by a clerk represents a certain expenditure of money to obtain the information and make it available. If that expenditure be worth more to the company than the figure as finally presented, then, to that extent, the accounting department is operating at a loss.

Accountants as a class have a bad reputation for just this sort of error. Sometimes the bad name is justified. Most business men of experience have come into touch with cost systems which so burdened the accounting department with detail and were so complicated and involved even in their final results that the whole organization, including the executive, was too deeply buried beneath a mass of figures ever to rise above them and grasp their true significance. Occasionally, such a system goes beyond the office in its pernicious effect, and, through its requirements of elaborate reports from the manufacturing departments, actually retards production.

Moderation in all things is a good rule for the cost man. In a highly organized industry, the accounting system of necessity must be rather complicated—often more so than seems reasonable to the manufacturing executives—but it should not be one whit more involved than is required to afford the best results for the industry.

8. The best cost system in the world can have the heart taken out of it by one apparently insignificant defect—delay in issuing the figures to the executives who need them in carrying on the business. Cost data should be news—not ancient history. Of course, even late figures, if correct, are useful in determining the showing of a company over a period; but to be vital and dynamic—and that is what they should be—the cost results must be published as soon as possible after the close of the period which they cover.

In an industry where the product is varied and complicated, manufacturing errors are likely to occur. Very often, the errors can be detected easily when the cost exhibits for one month are compared in detail with those covering the previous period. The comparison, however, must be prompt enough to minimize the repetition of the same mistakes in the month that follows. For this the system should provide for an arrangement that makes for

speed in the elements needed for the comparison; and the cost executive, on his part, should prove his ability as a manager by "getting the figures across" in time.

Nor should it be necessary to wait until the end of a month for all the cost news. It is true that overhead distributions and total manufacturing costs cannot be obtained until the data for the period which they cover are complete; but certain facts in every business, gathered primarily, perhaps, for the benefit of the cost department, may be charted as they occur and used by the factory management for current control of the operations. Direct labor, daily payrolls, comparison of piece and day work, bonus statistics, machine hours may be among these. The cost man is more than an accountant. He is the man at the periscope, the keeper of the navigation chart. He holds in his hands the veritable control of the company. Unfortunate, indeed, is that executive whose costs are figured by a man with a quill pen.

9. Finally, the cost system, being presumably not a work of fiction, must accord with facts. The general books with which the system balances may record facts or they may not. There is only one way to prove both the systems and the books: by actual, physical inventories. These should be taken often enough for safety, yet not so frequently as to interfere with the manufacturing operations. Agreement with such inventories is at once the final essential of a cost system and one of the proofs of its accuracy.

Such, it is submitted, are the essentials of the ideal cost system. The manner of attainment will vary with the individual industry. In an article of this length, the subject of how to reach the results cannot even be approached. Certain it is, however, that they are all perfectly practicable. Nothing has been suggested that is not being done every day, in hundreds of well-established cost departments.

Now and then the accountant will be found who maintains that his industry is different; that the foregoing standards, though feasible in most factories, are impossible in his own—the peculiar nature of his product forbids. Perhaps he is correct; but it is well to examine the pen used by such a man, and to note what it is that protrudes from his hip pocket. It may be a flint chisel.

Audit Working Papers*

By William H. Bell

My remarks will be predicated to a large degree upon the idea that the principal is not to do the auditing work himself, or at least upon the necessity for some one to utilize the papers other than the accountant directly engaged upon the audit. With this assumption, it may be stated that the importance of the substance and form of working papers is threefold: first, to the accountant himself, not only in the audit procedure and the preparation of his report, but in answering questions that may later arise from any source; second, to the person or persons who review and check the report; and, third, to the accountant making a subsequent audit. I shall endeavor to avoid a discussion of methods of auditing, but the subjects are so closely related that it may be impossible to do so entirely.

There are two general tendencies regarding the data contained in working papers, viz., deficiency and superfluity. It is probable that the latter is more prevalent than the former, but the tendency to prepare superfluous working papers diminishes in direct ratio to an accountant's advance in proficiency as an auditor, that is, as he becomes more practical. Granting that an accountant charged with the preparation of working papers has the requisite knowledge of the principles of auditing, it should be almost unnecessary to tell him what to do, except as a means of facilitating his work, other than by telling him what not to do.

The most glaring examples of superfluous work or misdirected energy are mere transcripts of accounts or so-called analyses of accounts designed to classify the entries, which utterly fail to accomplish what might be written on one line. The principles actuating accountants in preparing such papers appear to be to obtain information, no matter how untrustworthy or unnecessary, and to check the mathematical accuracy of the accounts in that manner. Practically, they are often meaningless figures. Cases in point are analyses of reserves for depreciation without determination of the rates and the asset values constituting the

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bases for the credits and without information regarding the charges; elaborate tabulations of sales, cash receipts and disbursements, accounts receivable and payable controlling accounts, etc., the only practical benefit from which may usually be derived in a great deal less time by checking the footings and a few postings on the books; schedules of accounts receivable, unpaid vouchers, etc., prepared by the accountant, when the client's trial balances may usually be utilized to equal advantage.

On the other hand, it is well to recognize the aid to the memory in recording what is brought to the attention; also the fact that the act of writing may serve to impress upon the mind what might otherwise be overlooked. As an example of the application of the latter principle may be cited summaries of inventories. It is well known that the verification of computations of inventories becomes somewhat monotonous, and that therefore important factors may be overlooked if the accountant's attention is not abruptly arrested by means of writing a summary. I have in mind a case where an accountant overlooked erroneous additions and deductions in the summary of an inventory which were of considerable importance. I am confident that the facts would have been forced upon his attention by writing the items; if not, they would certainly have been disclosed to the accountant in charge of the work.

It may seem rudimentary, but is nevertheless important, that every letter and figure in working papers should be legible to others as well as to the accountant himself. In my search through papers for information elucidating some assertion in a report, I have even found memoranda in shorthand, which might as well be in Sanskrit for my use. This precaution regarding legibility applies particularly to names. If these are to be used in a report they should be typewritten if practicable; if not, they should be printed or written with great care. Abbreviations should not be used when there is any possibility of their being misunderstood.

I do not favor the use of ink in preparing working papers, believing that there are too many occasions for erasures and that there is no practical advantage to offset the additional time required.

Especially in large organizations, or where several accountants are engaged upon an audit, it is important that each paper

bear the initials or, if necessary, the full name of the person responsible therefor.

It is desirable that papers be of standard size, so that the larger sheets of analysis paper, when folded, will be uniform in size with the journal or memorandum paper. The principal advantage of this is that it is conducive to a more orderly condition of the files, but it also tends to obviate loss or misplacement. It would be ideal if all memoranda were made on sheets of standard size, but that ideal will hardly be attained. In fact, I prefer to sacrifice uniformity in size, if necessary, for the sake of preservation of all papers that can even remotely be regarded as having a future value. I have heard of a lawsuit being won through the preservation of a piece of scratch paper showing a multiplication. However, odd pieces of paper may be pasted or securely attached to standard size sheets, thus affording greater assurance of their being preserved.

It is important that only one side of the paper be used. Writing on the back of a sheet may easily be overlooked. Paper is cheap, even at present prices, as compared with the impairment of efficiency resulting from too great economy.

Each sheet should be headed with a terse description of what it purports to be, including the name of the engagement and, usually, the date or the period covered by the audit, to avoid possible confusion with other papers. When sheets are folded the same information should appear on the outside.

It is a matter of individual preference as to whether all papers shall be fastened together. I fail to see any advantage in it, excepting as to irregular size sheets, and believe that a judicious use of folders is better, especially considering the additional work of cutting or folding the larger sheets for the purpose of attaching them, and the greater facility of reference if they are loose.

It may not be amiss to refer to the color of paper to be used. In my opinion all paper used by accountants in their work should be buff—to relieve eye-strain as much as possible.

During the early stages of the work the accountant should acquaint himself with the accounting system in use and the office personnel. Unless the client's organization is comparatively small, it is usually desirable to include in the working papers a list of the books and records that will be used in the audit, the names of the

persons keeping such records and of officers, etc., with whom the accountant or his assistants will come in contact, and such information as the names of persons authorized to approve vouchers, sign cheques, etc. This memorandum can also be utilized in conducting future audits.

When the accountant has progressed far enough in the work to formulate a comprehensive plan, he should prepare a work sheet or audit programme, or if it be the policy of his organization to use what may be called a stock form of programme, he should adapt it to the requirements of the particular engagement. One such programme may be made to cover several periodical audits if good judgment be exercised in giving effect to changing conditions. For this purpose a columnar sheet may be used, with the various details of work to be done listed down the left side and the columns headed, in pairs, with the dates of the respective periods to be covered. One of each pair may then be used for the initials of the person doing the work and the other for the date on which it was performed. When certain parts of the audit are limited to tests, such as the verification of vouchers, footings, sales invoices, postings, etc., the work sheet should show what periods or approximately what percentages of accounts, etc., were selected and examined. The word test is subject to much abuse unless properly safeguarded. It is often advantageous, also, to make a note on the work sheet of the time devoted to certain phases of the work. I do not advocate using the same work sheet for two periods as far apart as a year. However, I believe it is desirable for an accountant to familiarize himself with the work of the previous year, as a basis for his judgment regarding the work to be done, by reviewing all the working papers used at that time.

The basic working paper, the backbone of the working papers, is the general ledger trial balance. Virtually all other papers relate to the items shown on the trial balance. It is usually desirable for the accountant to draw off a trial balance himself. It should always be included in the working papers in any event—that is, the client's trial balance book should not be checked and the statements prepared therefrom—and it has been my experience that time is seldom saved by utilizing the client's printed or typewritten form.

My comments on the general ledger trial balance are intended to include the trial balance of a private ledger, if any. If there be more than one ledger containing general or financial accounts the trial balances should be combined, either by eliminating the controlling accounts for the purpose or otherwise. Of course, there may be exceptional cases where the private ledger accounts are of such a confidential character that the trial balance of that ledger should not be exposed by being used in conjunction with that of the general ledger. In such cases the former should be treated as an analysis or schedule of the latter.

In my opinion, it is usually desirable to treat the profit and loss accounts, whether before or after closing, as a part of the general trial balance. This will necessarily be done if the closing entries have not been made, and I believe that the procedure is advantageously simplified, in the great majority of audits, by having only one series of supporting analyses and schedules. If subsidiary operating ledgers be kept it is usually advisable to treat the trial balances thereof as analyses supporting the general ledger trial balance.

In my opinion there are few trial balances so small that it is not desirable to separate the debits from the credits, putting the latter on a separate sheet or on the bottom of the same sheet. Where there are few accounts, and especially if the books have not been closed, it is usually satisfactory to make no distinction at first between classes of accounts and to arrange the trial balance in columns as follows, with separate sheets or sections for the debits and credits:

Ledger folio.
Name of account.
Balance at beginning of period.
Balance at end of period, per books.
Adjustments, in one or two columns—increases in black and decreases in red, both in one column, or debits in one column and credits in the other.
Balance as adjusted, in two columns—one for assets or liabilities, and the other for profit and loss charges or credits.
Remarks.
Reference to supporting papers.

In perhaps the majority of cases, however, I believe that it is desirable to show separately the asset and liability and the profit and loss debit and credit accounts, that is, on four sheets or parts of sheets. Then only one column is required for the final figures. If the books have been closed it is usually desirable to place the liability accounts immediately after the asset accounts and effect a balance. Then should follow the debit and credit profit and loss accounts, which should also be made to balance by including in the credits the balance at the beginning of the period and in the debits the balance at the end—assuming, of course, that they are both credit balances. If the books have not been closed it is usually not worth while thus to balance both the balance-sheet and the profit and loss accounts, but the preparation of the statements is facilitated by doing so eventually.

In the case of monthly or, perhaps quarterly audits, one trial balance may be used for a number of periods, as it is usually unnecessary to provide columns for adjustments, etc. It will be found advantageous in such trial balances to work from right to left, that is, to have the latest figures nearest the name of the account.

When the classification of items in the balance-sheet and the profit and loss statement and the number of accounts on the trial balance can be foreseen with reasonable accuracy, as will be the case if the accounts have been audited before, it is often an advantage, especially on a voluminous trial balance, to group the items as they will be recapitulated in the statements, without regard to their sequence in the ledger. This will usually obviate the preparation of special grouping sheets.

To summarize, the arrangement of the trial balance should be varied if necessary to meet the particular conditions, as, more than any other factor, it will facilitate or impede the work of all who for any purpose have occasion to use the working papers.

All adjustments made by the accountant during the progress of the audit should be prepared in his papers in journal entry form, with the same care as to explanations that he would exercise if he were making the entries on the books. All entries should be numbered, and a separation made between those made on the books, if any, and those necessary to reconcile the balances of the accounts as shown by the books and as adjusted by him. If the trial balance has been originally taken off before closing and there

are many adjusting entries in closing, it may be desirable to take off another trial balance on the same sheet, after closing, rather than to make all these entries in his papers. At any rate, the final trial balance taken off the books should be the basis for all figures subsequently used, and any adjustments thereof should be shown in the papers. The adjusting entries, with their numbers, should be posted to the trial balance in the column or columns provided for the purpose. If, however, there are many entries affecting one account they may be recapitulated and posted as one item. The adjustment column or columns of the trial balance should be footed to see that they balance. All adjustments should be applied to supporting analyses or schedules as well as to the trial balance.

In the space provided on the trial balance for remarks should be noted any information regarding the nature of, changes in or verification of the accounts when it has not been considered necessary to prepare supporting papers. There are very few items on a trial balance, other than those requiring analysis or supporting schedule, that do not call for some comment, if only "no change," which may be ample in the case of property accounts if there has actually been no change. This should not be inferred from the fact that the balance at the end of the period is the same as at the beginning.

In the last column of the trial balance should be shown the reference number of papers relating to the account. All analyses or schedules of accounts or other data relating thereto, which cannot be indicated on the trial balance itself, should be numbered conspicuously, preferably in colored pencil, and the number should be shown on the trial balance. If appropriate, the same sheet may be used for more than one account, but unless there would be unnecessary repetition or waste of paper, it is better to use separate sheets. Supporting papers are usually numbered in the order of the appearance of the items on the trial balance, but this is by no means essential—in fact, it is usually desirable to put the bulkier papers at the back of the folder. All supporting papers relative to one account should be fastened together and similarly numbered. This applies to confirmations, unless their bulk precludes attaching them to the other papers, in which case their location should be definitely shown by some method of indexing. If a confirmation cover more than one subject—for example, a

bank's certification of cash balance, notes payable and securities held as collateral—and it be attached to the cash papers, reference should be made thereto opposite the related items on the analyses of notes payable and securities pledged. It is often desirable to distinguish between sub-analyses by a series of letters, which should be indicated plainly on the main analysis.

Any papers which do not relate directly to a trial balance item should be placed in a special folder and, if there be many, should be indexed on the cover. Among such papers will be the work sheet or audit programme, memoranda regarding salient features of the accounting system, etc., excerpts from by-laws and minutes, various agreements, data regarding contingent assets and liabilities not on the books, copies of the client's statements and memoranda prepared during the progress of the audit relating to points to be covered in the report.

The accountant should be so methodical in the preparation of the statements for his report that each item can be readily traced back to the trial balance. Unless the accounts in the trial balance are so few that they are carried as such to the statements, or unless the trial balance has been specially arranged to show the constituent items of the statements, as explained in the foregoing, it will be necessary to prepare grouping or assembly sheets for the purpose. These usually contain simply the captions used in the statements and the component trial balance items. If the classification be elaborate and the accounts numerous, it is usually well to designate the captions by letter or number, referring thereto on the trial balance. In rare cases it will be found convenient to apply adjustments to the grouping sheet instead of to the trial balance.

Perhaps it is not especially germane to this subject, but I am constrained at this point to call attention to the necessity of being certain that the figures used in the preparation of statements, through the grouping sheet or trial balance, "tie up" to the supporting analyses and schedules; also that the profit and loss balance used in the balance-sheet is the same as that shown in the profit and loss statement. It is well to use a distinctive check mark to indicate final approval of the trial balance items. Care should be exercised in making last-minute changes to see that a clear record is left in all the working papers affected.

With regard to the various analyses, etc., almost all that can be said in such a general discussion as this is that, both as to content and form, they should be adapted by the accountant to meet the exigencies of the situation which he faces. Attention has already been directed to the folly of making mere transcripts of accounts when it is the intention to check their accuracy or bring out certain of their salient features. Further, analyses may often be combined to good advantage. For example, additional columns on the analyses of notes receivable, notes payable and investment securities will take the place of separate analyses of interest accrued or paid in advance, profits and losses on sales of securities and interest income. The same principle may sometimes be applied to summaries of property accounts and depreciation. On the other hand, I have seen some fanciful arrangements of analyses, ostensibly designed as labor-saving devices, that must have taken more time to prepare than would have been consumed in expressing the facts in a simpler manner.

A judicious use of distinctive ticks and colored pencils will often be found helpful, as indications concerning procedure in the verification of accounts, but care should be exercised to furnish a key to their significance.

As a rule, analyses should not be abstracted from previous papers and used again. However, this is sometimes desirable to avoid rewriting lengthy explanations, and it may be done provided a memorandum is placed in the previous papers, properly indexed, to show where the paper can be found.

I cannot emphasize too much the necessity for an accountant's including in his working papers everything that comes to his attention bearing upon the audit. He should make notes of any conclusions he may reach regarding the accounts, and make them complete, so that, to take an extreme case, but one with which I have had to deal recently, if he were to die before the report had been prepared some one else could prepare it from his papers. In brief, the accountant should bear constantly in mind that his working papers are the only record of what he has done, and that for this reason they should be a complete record, including any conclusions or deductions he may have made—both for his own use during the work and after its completion and for the use of others.

Advantages of Uniform Accounting*

By Anthony B. Manning

In all fields of activity today we find that persons, firms and corporations in similar trades or industries are banded together in associations for the purpose of a closer trade relationship. Discussions on co-operation, prices, credits, etc., are of particular interest; matters of legislation that are beneficial or detrimental to their particular industry are debated; committees are formed for the purpose of investigating particular phases of various questions that are vital to the health of their trade or industry, but rarely do we find the different members of an association exhibiting statements of their cost of doing business for the benefit of the other members.

In the operation of any business, large or small, the intelligent management and financial success depend not only on shrewd buying of raw commodities but on economical operation as well. If the proceeds of the sales are higher this month than they were last month, and the cost of operating has increased in a larger proportion, even though the cost of raw materials and supplies may be normal, it will naturally be found that the profits have decreased. Then, again, even though the profit and loss statement of a particular business may compare favorably from month to month, it would be of interest to know just how it compares, item for item, with similar reports of other members of the same trade association in that particular locality. But, unfortunately, this data is more or less sacred to the average business man and as a result no comparison is possible.

How is the broad-minded business man to know how his operating costs compare with his competitors'? By a comparison of his statement with a consolidated statement of all the members of his association.

The basis of all comparisons is uniformity of system, without which the comparison of the various elements of operating costs, overheads, etc., would be misleading. In each industry a standard system of accounts should be devised—call it standard practice, standard procedure, classification of accounts or any

*A thesis presented at the May, 1919, examination of the American Institute of Accountants.

other name if you will—but nevertheless it must be in principle fundamentally adapted to the particular industry and recognized as standard. It must be made plain just what should be contained in each account and should reveal the necessary procedure to follow in clearing the "wash" accounts and setting up the reserves at the end of each accounting period.

As an example, take the telegraph companies and the telephone companies. The government has published in pamphlet form the procedure necessary for these two classes of industry and, elaborate as they are, they embody all the conditions that are apt to come up for treatment. They set out in no uncertain terms what each account should contain, with a system of symbols to designate each account classification, the "wash" accounts and reserve accounts necessary and how to clear them. These two pamphlets are good illustrations of what a standard procedure, briefly stated, should be. The uniform system should be properly installed in all the plants of the same industry by competent accountants, so that the peculiarities of each plant can be taken care of, as they develop, without interfering with the main scheme.

With a uniform system of accounts properly installed, it is advisable for the accountant engaged to make a monthly audit in detail and to prepare statements of operating costs, selling costs, administrative costs, etc., showing the relationship to the whole. A statement like that on page 115 would bring out data for comparison which would be beneficial to the management of any manufacturing business.

While of course the above statement is not complete as to all the elements of expense under each heading, it will illustrate the segregation attempted for comparison. It may be said that this form with a few changes has been used in plants of the same company where a continuous process cost system is in operation.

If each manufacturer would adopt a uniform system specially designed for his industry and a uniform statement of manufacturing, selling and administrative costs compiled and certified every month or every quarter by a competent accountant, and if the association would appoint an auditing committee or engage a certified public accountant as a confidential disinterested party to consolidate the individual statements of each member and have this consolidated statement published in a special pamphlet or in the association's journal, each member could compare the

MONTHLY STATEMENT OF OPERATING COSTS AND PROFIT

Elements	Current month Amount	%	Last month Amount	%	Same month last year Amount	%
Manufacturing section:						
Opening inventory of raw material	....	....	....	....	....	....
Purchases	....	....	....	....	....	....
Raw material available for use	....	....	....	....	....	....
Closing inventory raw material	....	....	....	....	....	....
Raw material used	....	....	....	....	....	....
Opening inventory process material	....	....	....	....	....	....
Productive labor	....	....	....	....	....	....
Unproductive labor	....	....	....	....	....	....
Rent	....	....	....	....	....	....
Power, light and heat	....	....	....	....	....	....
Insurance	....	....	....	....	....	....
Repairs	....	....	....	....	....	....
Renewals	....	....	....	....	....	....
Depreciation	....	....	....	....	....	....
Etc.	....	....	....	....	....	....
Total charges	....	....	....	....	....	....
Closing inventory of process material	....	....	....	....	....	....
Cost of finished goods	....	100%	....	100%	....	100%
Merchandise section:						
Opening inventory finished goods	....	....	....	....	....	....
Finished goods produced	....	....	....	....	....	....
Finished goods purchased	....	....	....	....	....	....
Finished goods available	....	....	....	....	....	....
Charges against finished goods, such as insurance, storage, etc.	....	....	....	....	....	....
	....	....	....	....	....	....
Closing inventory finished goods	....	....	....	....	....	....
Cost of sales	....	100%	....	100%	....	100%
Selling section:						
Sales	....	....	....	....	....	....
Less returns	....	....	....	....	....	....
Net sales	....	100%	....	100%	....	100%
Cost of sales	....	....	....	....	....	....
Charges against sales (itemize)	....	....	....	....	....	....
Total	....	....	....	....	....	....
Selling profit	....	....	....	....	....	....
Administrative section:						
Selling profit	....	....	....	....	....	....
Administrative expenses (itemized)	....	....	....	....	....	....
Net profit	....	....	....	....	....	....

percentages of each element of expense in his particular business for the period with the percentages of the consolidated statement, which would be the average of all statements.

In this way he could determine what elements of cost were above the average, investigate the cause, eliminate costly methods and still attain the desired improvement. A comparison of this kind will enable each manufacturer to trace the leaks in his business without knowing the individual competitor's costs. When the comparison is made, he knows that the individual statements used to make up the consolidated statement were taken from systems of accounting similar to his. He knows that what was considered unproductive labor in one plant was considered unproductive labor in his plant and all the other plants of the particular industry. He also knows that if the percentage of any one element of cost as shown in the consolidated statement is lower than the percentage representing a similar element of cost in his statement there must be some other company whose cost must be lower than the average, as the consolidated percentage is an average of all statements combined.

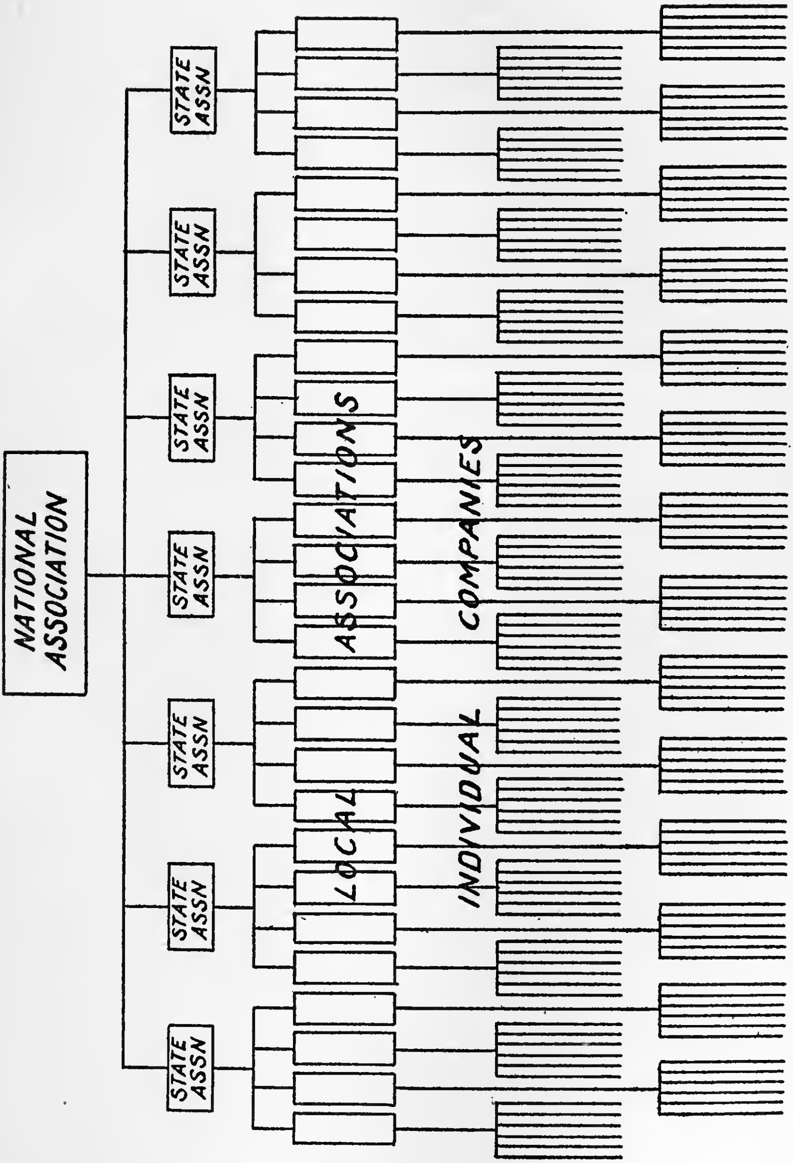
The system in use in most large corporations operating a number of plants and having accounting records kept in each individual plant, controlled by a uniform system from which monthly reports are rendered to the main office for purposes of consolidation, is similar in principle to the method advocated for each industry. Consolidation is simplified, as all statements are built up on the same basis. If the procedure has been followed the basis of comparison is uniform.

To carry the idea as applied to the industries a step further, everything else being equal, each local organization of the particular industry could forward the local consolidated statement to the state body and each state after consolidating the several local statements could, in turn, forward the consolidated state report to the national association. In chart form this appears on page 117.

So that a statement could be published showing the results of the country by sections, viz:

Statement of Operating Costs and Profits

Elements	North		South		East		West	
	Amount	%	Amount	%	Amount	%	Amount	%


NATIONAL ASSOCIATION
STATE ASSN
STATE ASSN
STATE ASSN
STATE ASSN
STATE ASSN
STATE ASSN
STATE ASSN
LOCAL ASSOCIATIONS
INDIVIDUAL COMPANIES

This would show the volume of business for the country by sections and, if published, would afford the individual manufacturer a comparison of his costs not only with the average of his competitors' costs in his immediate locality, but with the averages of the different sections of the country.

Many industries have recognized the benefits of a uniform classification of accounts and have adopted systems whereby the procedure of operation is similar in all the plants. If arrangements were made whereby each individual manufacturer or trader could make comparisons of the results of the activities of his plant with the combined results of his competitors' plants, the result should be intelligent operation and management making for the health of each manufacturer's business and of the industry as a whole.

No corporation of any size would attempt to carry on business today without a monthly comparison of costs and volume of business of each plant, making allowances for local factors of variation. It is considered imperative that this should be done, and rightly so, as in no other way will leaks be disclosed. If it is considered necessary in a large corporation operating several plants, the same holds true in a particular industry. If bad business practices, waste and leaks in general are disclosed through this method in a large corporation, the same benefits will accrue to an industry by the use of similar methods.

Apart from the idea of possible comparison between competing companies of the same industry or plants of the same company, there is also an internal benefit attached to a uniform system of accounting which was illustrated to me in the course of the daily routine in a large plant, where I was engaged on an annual audit.

This plant was operating under a uniform predetermined procedure of accounting and had a competent accountant as plant auditor, who was responsible for carrying out the system according to procedure. I was in conference with the auditor at the time and during a pause in our discourse, occasioned by my inspecting some confidential data, his assistant, turning to him, said: "Do you know that Mr. Blank has worked out an elaborate scheme whereby he saves about two hours of his time each day, which, while it seems good, may have some detrimental effect on our ultimate results?" The auditor immediately sent

for Mr. Blank, who was a new man anxious to make good, and said to him: "Mr. Blank, I am informed that you have made some improvements in the work at your desk and I am anxious to have you explain them to me." The young man, with a broad smile, happy with the thought that his ability was recognized so quickly and glad of the opportunity to explain his ideas, instead of receiving a "call down" which might be expected by anybody who was called on the "carpet," said he would get the data which would illustrate the changes and the resulting saving of time.

After he explained the improvements he had worked out, the auditor turned to him and said: "Mr. Blank, that is a very good idea and something we had never thought of before. It would be a very helpful suggestion were it not for the fact that it would affect the work of other departments that depend on certain information coming from your desk. There is one thing we all must keep in mind and that is that our system of accounting is the result of an exhaustive study, covering many months, by the best available talent in all the plants of this industry, collaborating with a staff of certified public accountants. We have no choice in the matter, and the procedure must be followed literally in order to supply data compiled each month in every plant of this industry so as to preserve the basis of internal comparison between our own plants and the other companies of this industry. We appreciate the fact that conditions are liable to change, and no doubt we shall be called upon to suggest corresponding changes in our accounting methods. We will depend on such thinking men as yourself to help us out, as you are familiar with the details. There may be a number of different ways, all good, of obtaining the same results, but we cannot change any link to such an extent that it would not fit in the other links or weaken the chain. You have the right idea. Look for improvements—there may be plenty of room for them in working up the details, through short-cuts, etc.—but first get acquainted with the general scheme, learn where your basic data come from, where the results of your efforts go and how they are used. In short, before you make any changes be sure nothing in the general scheme is affected."

There is nothing in public accounting practice so aggravating as to find, when an audit is in progress covering a period of three or more years, that every time a firm changes its chief

accountant invariably comes a change in methods. Each chief accountant has a number of "pet hobbies" he likes to try, or possibly he only understands one way of doing things, and whether these methods are suitable to the business or not they are adopted. His term of employment proving short, he resigns and his system is discontinued. When a new man comes in he introduces another system. In the meantime the basic data of original entry is lost and the public accountant is in difficulty and is forced to take a roundabout course, consuming much time, to satisfy himself as to the correctness of the entries.

With a condition of this kind, the men in the accounting department get discontented and resign, and in a short time none of the employees of the firm is acquainted with the details of past periods, the location of the records or the system in practice. This condition is responsible for the lack of knowledge of detail and is the cause of the oft-repeated answer: "I don't know. That was before my time."

This is a deplorable condition, yet in many plants it prevails today because it has not been recognized that a uniform system of accounting specially designed for the needs is as necessary to business success as shrewd buying and selling. In conclusion, it may be stated that a uniform system of accounting is productive of:

(a) Keeping the accounting department to a hard and fast rule or procedure and eliminating the adoption of pet theories.

(b) Affording internal monthly comparisons, compiled on similar lines, between plants of the same company.

(c) Making possible the periodical comparison of costs between the individual company's report and the consolidated report of all companies in the same industry.

(d) Affording the internal revenue department data to guide in tracing the tax slacker by comparison of the ratio of cost and net profit to gross revenue of one company with similar ratios of other companies in the same industry, making allowances for local factors of variance.

Federal Taxes in Relation to Business*

By Homer N. Sweet

The subject before this meeting has already received earnest consideration on the part of your association. I understand that the association has proceeded in this matter, as in many others, with broad purposes in view and with an aim to public service. The special war tax advisory committee of your association made a comprehensive study of tax legislation in 1918. It laid before the appropriate committee of each house of congress a brief containing practical recommendations, many of which were recognized in the final bill as enacted in February of this year.

We may well confine our discussion today to the more recent developments affecting the relation of federal taxes to business. The taxes to which I refer are the corporation income tax and the corporation excess profits or war profits tax. After declaration of war by our country a large war tax levy was to be expected and it should be willingly paid. These taxes, nevertheless, must be reckoned with in appraising the earning power or financial stability of any corporate enterprise.

Sound accounting demands that the obligation of a corporation to the United States government for accrued taxes shall be represented on the balance-sheet among the quick liabilities, and sound financing requires that adequate funds shall be set aside and made available for meeting these taxes. Unfortunately, owing to the intricacies of the excess profits tax, corporations cannot be at all certain that they have computed their taxes correctly. The internal revenue department will make numerous adjustments in tax returns as filed and corporations will be liable for reassessments during the five years following any taxable year. We shall have to deal to a greater extent than ever before with contingent liabilities and contingent assets. That is one of the most difficult tax problems with which business men in general and credit men in particular now have to contend.

The income and excess profits taxes assessed on all corporations for 1917 amounted to nearly $2,320,000,000. On the average

* A paper read at the annual convention of the National Association of Credit Men (iron and steel industries group) at Detroit, Michigan, June 11, 1919.

these taxes were about 22% of corporate net income. The taxes for 1918 are estimated at $3,275,000,000, or about 33% of the total estimated net income of all corporations.

Let us assume, for example, that a corporation having an annual net income of $1,000,000 would be taxed at the average rates mentioned. For the year 1916, when there was no excess profits tax and the income tax rate was only 2%, such a corporation would be taxed $20,000; but for 1917 the tax would be $220,000, and for 1918 $330,000.

These amounts measure the great increases in taxes which have been levied on corporation income throughout the country. It should be remembered that these are average figures. In the every-day experience of a credit department, the average corporation is perhaps the exception. Certainly, many concerns in the iron and steel industry will pay much larger taxes in proportion to net income than the average corporation.

The balance-sheets for December 31, 1918, of 15 typical corporations in the iron and steel industry show percentages of tax liability to total current assets varying from 1% to 42%, with the average around 18%. This constitutes a substantial draft upon resources.

According to pre-war standards, the amount of tax appears large in proportion to net income and current assets. Corporations would nevertheless be able, in the great majority of cases, to arrange satisfactorily for the liquidation of this liability at the proper times, provided the amounts could be definitely ascertained at the time of closing the books. But, however conscientious a corporation may be in its attempt to comply with the law and regulations, later rulings and court decisions may result in additional assessments. Taxes of prior years, which were thought to have been completely liquidated, may later be increased, and assessment of the additional amounts may fall as an unexpected draft upon cash resources. In view of this contingency, a corporation cannot define its dividend policy with assurance. Investment of surplus earnings in needed additions to plant either may be postponed or may be undertaken at the risk of placing the corporation in a position where it could not meet the additional assessments except through loans.

The tax of one corporation has been calculated by two experts. One finds the tax to be $2,000,000; the other figures it at $500,000.

The difference of $1,500,000 in the two amounts is due to opposite interpretations of a doubtful point of law which may not be settled for several years. There are so many special cases of this kind to be brought before the advisory tax board that we cannot reasonably expect that they will be promptly settled.

I will mention only a few of the various contingent factors which make the determination of taxes so uncertain for corporations. Owing to the wide fluctuations in tax rates for the years 1917, 1918 and 1919, the amounts of taxes are materially affected by the methods employed in the accruing of income and expense for each twelve-month period during these three years. The internal revenue department will take exception to the accounting methods followed by many corporations, and it may be expected that higher taxes will be levied after returns have been amended. Delayed settlements of government contracts will postpone for several years the final determination and assessment of 1918 taxes of many corporations. Certain regulations of the department and decisions of the courts will be retroactive and will result in reassessments in cases where returns were made exactly in accordance with the rulings in force at the time. Liquidations and reorganizations often raise tax problems which will not be finally decided for several years.

Such is the situation which has grown out of the complexity of the law and its application. The possibility of large reassessments should not be overlooked in analyzing the credit standing of a corporation. We have been accustomed in the past to make conservative allowances for shrinkages of assets which may not realize the full amount of their book value upon sale. We must now make some reservation for the understatement of liabilities for taxes. No general rule can be laid down for proving whether a corporation has completely met its tax liabilities. Analysis of balance-sheets for successive years cannot be depended upon to reveal underpayments of taxes. Judgment must be based mainly upon the general character and trustworthiness of the corporation. Companies which are known to adhere to conservative policies in finance can be depended upon as a rule to consult competent counsel and to make ample provision for tax liability.

Were it not for the fact that many balance-sheets which have come to my notice have not contained any reserves for taxes, I would not think it necessary to repeat that accrued taxes are an

actual obligation which should be included among the quick liabilities on financial statements. Even with the plan of payment by instalments, which is provided for in the existing law, the full amount of liability should be represented among the quick liabilities because it is due within twelve months.

Many published financial statements of the past year or two indicate plainly that the responsible officers did not have a clear conception of the financial requirements imposed by income tax laws, or else they purposely evaded these requirements. Not a few statements have contained no specific provision whatsoever for tax liability. Financial statements for 1918 rarely state whether the reserves for federal taxes have been computed under the 1917 act or under the higher rates prescribed by the law passed by congress in February, 1919.

The situation is relieved considerably by the quarterly payment scheme. Inasmuch as the instalments are spread over the twelve months following the year for which the taxes are assessed, the current earnings can be drawn upon in case of need to defray a portion, at least, of the previous year's taxes. It would be unsafe, however, for a corporation to place dependence upon future earnings to the extent of disbursing its entire surplus funds in dividends, or investing them in plant additions. Such a policy would be highly speculative. If anticipated earnings were not realized, such a corporation might find itself unable to meet the tax instalments as they came due. This has actually been the experience of one corporation, as I happen to know. That company was forced to borrow money on unfavorable terms in order to pay its tax bill.

It should be the policy of a corporation, therefore, not only to establish on the books adequate reserves for tax liabilities but also to set aside funds of corresponding amounts to be available as instalments fall due. Such funds should preferably be invested temporarily in United States certificates of indebtedness. Examination of the balance-sheets of corporations in strong financial positions shows that these companies held certificates of indebtedness and Liberty bonds on December 31, 1918, in amounts approximating the tax liabilities.

I will conclude with a brief statement of the practice which, in my opinion, should govern the policy of corporations with respect to taxes.

1. All possible care should be taken to determine the correct amount of tax which would be imposed under a reasonable interpretation of the law.

2. The balance-sheet for the end of the fiscal year should include, as a separate item among the quick liabilities, the amount of federal income and excess profits taxes assessable on the net income earned to that date.

3. The balance-sheet for any date other than the close of the fiscal year should include, as a separate item among the quick liabilities, an amount representing estimated taxes accrued for the current year.

4. The balance-sheet for any date should designate the act under which the liability for federal taxes was calculated—otherwise, inquiry may properly be raised as to whether the taxes were figured in accordance with the provisions of the most recent act.

5. Funds to meet taxes should preferably be invested temporarily in certificates of indebtedness. In no event should funds required for taxes be distributed in dividends or invested in fixed assets.

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EDITORIAL

Approaching Standardization

Several times during the past two years The Journal of Accountancy has commented editorially on the plan of the American Institute of Accountants to encourage uniformity of examination for the certified public accountant's certificate. When the movement was first started there were some skeptics who expressed a fear that state boards would not see the advantage of the institute's proposals and that the number of states adopting the plan would be insignificant.

The board of examiners, however, proceeded to perfect the system of uniform examination and placed it before all state boards of accountancy through the officers of those boards. Even the boards in states whose certificates had not been officially recognized by the institute were invited to co-operate.

Many factors had to be taken into consideration in the preparation of the plan. It was understood from the beginning that no plan could be devised which would not be subject to some criticism. The board, however, invited the assistance of state boards and persons interested in the establishment of a standard and, after prolonged discussion, alteration and modification, produced the plan of co-operation which is now being followed with remarkably successful results.

In view of the great importance of the question and in the belief that every friend of accountancy will be interested, we publish herewith text of the plan as finally adopted and dis-

tributed to all members of all state boards of accountancy in the United States.

AMERICAN INSTITUTE OF ACCOUNTANTS

1 Liberty Street, New York

PLAN OF CO-OPERATION IN THE CONDUCT OF EXAMINATIONS OFFERED BY THE BOARD OF EXAMINERS OF THE AMERICAN INSTITUTE OF ACCOUNTANTS TO STATE BOARDS OF ACCOUNTANCY

In the hope of attaining uniformity in accounting examinations throughout the country, the American Institute of Accountants offers to state boards of accountancy a plan of co-operation which, it is believed, will lead to the establishment of a common standard wherever certified public accountant examinations are conducted.

In making this proposal to state boards the institute is animated solely by a desire to assist in the setting up of standards and realizes that it has no right, as it certainly has no desire, to interfere in any way with the prerogative or dignity of any state board.

State boards may accept the proposal at any time. If accepted the arrangement may be cancelled at will by state boards. The details of the plan follow:

1. Examination questions are prepared by the board of examiners of the institute and cover auditing, accounting theory and practice and fundamentals of commercial law.

2. Questions prepared by the institute are based upon sound practical knowledge and are carefully revised to eliminate all ambiguities.

3. The institute offers to all state boards the use of these questions and the services of the institute's examiners for grading the answers.

4. The institute's examiners will mark the answers of candidates and return the papers to state boards for their own marking, with reports of the opinion of the institute board as to the success or failure of candidates. Success or failure in each subject will be indicated, but exact marks will not be given.

5. The passing grade is 75% in accounting and auditing and 70% in commercial law.

6. The institute's examiners will not make any notations on the answers and will return them promptly to state boards if desired.

7. Examinations are held in the middle of May and November of each year.

8. Stationery suitable for the use of candidates is prepared and furnished with the question papers.

9. Any candidate who satisfies the board of examiners of the institute may apply to the institute at any subsequent time when he possesses the constitutional qualifications demanded by the institute and may be elected an associate of the institute without further technical examination.

10. Should such a candidate seek full membership, he will be required to prepare a thesis on one of a group of subjects proposed by the board of examiners.

11. Candidates for the C. P. A. certificate, if they possess the constitutional qualifications demanded by the institute, may file application to the institute simultaneously with application to the state board.

12. State boards which desire to have their candidates receive the benefit of grading by the institute in addition to the state board grading

should submit the answers immediately after the examination. This has been found necessary because the institute's examiners are engaged in marking as soon as the examinations are ended, and it would not be feasible to call back the examiners to examine each state's papers as they might happen to come in after having been examined by the state board.

13. In view of the considerable expense incurred in the preparation of papers, stationery, etc., in the conduct of examinations and in marking of the papers, the board of examiners has found it necessary to ask state boards of accountancy to bear a portion of the cost. This proportion in the light of experience has been found to amount to approximately $10.00 a candidate. Accordingly, state boards are requested to divide their fees with the institute on a 50% basis, on the understanding that in no case shall such 50% exceed $10.00 for each candidate. Should it later appear that the expense can be reduced, the institute will notify state boards and amend the basis of remuneration accordingly.

14. If a candidate for the C. P. A. certificate is at the same time an applicant to the institute no fee shall be payable by the state board on his account.

15. It is agreed by the board of examiners of the institute that if any candidate for whom fees have been received by the institute subsequently applies to the institute for admission, the $10.00 or other amount paid on behalf of such candidate by the state board shall be refunded to the state board.

16. It is further understood that when state boards re-examine candidates in one or more subjects without charge, no fee for such re-examination shall be payable to the institute.

Full particulars may be obtained from the offices of the American Institute of Accountants, 1 Liberty Street, New York.

By order of the board of examiners,

A. P. Richardson, *Secretary.*

August 1, 1919.

The foregoing statement is comprehensive and not easily susceptible of misconstruction. It indicates clearly the institute's desire to assist, its readiness to co-operate and its appreciation of the value of the state certificate.

As each succeeding examination period approaches there is increasing interest in the plan of co-operation and the list of co-operating states grows steadily. In some instances state boards expressed a doubt as to their ability under the law to adopt the questions of the institute, but this point has been given careful consideration by the board of examiners of the institute and by all those state boards which have adopted the plan. There no longer seems to be any ground for doubt that the plan not only conforms to the requirements of state legislation in regard to the conduct of examinations, but also tends to strengthen the effect of state legislation by the establishment of a standard concerning which there can be no difference of opinion. In other words,

standardization is a complete answer and refutation of the assertion, so often heard, that the certificate of one state is inferior to that of another.

Where all use the same questions inferiority or superiority need not be considered.

It is always unwise to predict—therefore, we shall not express the opinion that all states of the United States will ultimately adopt this or a similar plan of co-operation—but in view of the progress of the past three years it certainly is permissible to entertain such a hope.

In 1916 every state in the union in which examinations were conducted set its own standards practically without consideration of the conditions in any other state. In the middle of 1919 a standard examination held simultaneously is approved by more than half the states in which C. P. A. laws exist.

Sir James Martin

The sight of the name Sir James Martin will bring pleasure to every accountant who met the genial secretary of the Society of Incorporated Accountants and Auditors while he was in this country as a representative of the society at the congress of accountants at St. Louis, in September, 1904.

The accountants of Great Britain have rendered splendid service to their country and to humanity throughout the war. The younger men enlisted in the fighting forces and now that the war is over, while their memories are green, many of their places are vacant. The older men like Mr. Martin gave themselves with equal patriotism and devotion and found their part in the great struggle, not in fighting, but in organizing, directing and controlling the governmental and business forces essential to the equipment and supply of the army and navy. That the services of these men were of the highest value is attested by the honors that have in such large numbers been bestowed upon accountants by the British government. Among these honors, some of which have been mentioned in these columns, it is highly gratifying to find the knighthood of James Martin.

In view of all that has happened since, 1904 seems a long way off. To American accountants, however, the year 1904 marks an important mile-stone in the development of the profession. The

congress of accountants held in that year gave a tremendo stimulus to all that has been best in the growth of professio organization and consciousness among the accountants of t United States. Historically perhaps its chief significance lies i the fact that it was the first international gathering of accountan It was notable, too, for the number of able papers presented a the high level of the discussion upon them.

Preëminently, however, the congress was a place where frien- ships were formed—friendships which have lasted and have be a potent factor in producing the solidarity now attained. In th making of friendships James Martin took a leading part. H kindly personality and his gracious words in public speech, his t and his broad common-sense endeared him to all and aided grea in making an enthusiastic success out of what was beforeha recognized as something of an adventure.

May Sir James Martin enjoy his new and well-earned hono for many years.

Income Tax Department

EDITED BY JOHN B. NIVEN

From an accounting standpoint perhaps the most significant of the new treasury rulings is the amended and enlarged article 23, on the basis of computing income, published under T. D. 2873.

Re-emphasizing the obligation to account on the basis of the true income, whether this be on the cash or the accrual alternative, the regulation directs the adoption, for the taxable year 1918, of the basis correctly reflecting net income, regardless of which basis may have been followed in the past; and it permits future changes from one alternative to the other, after first duly securing the consent of the commissioner. It lays down the principle that no business in which inventories are an essential factor can report its true income on any other than the accrual method in regard to purchases and sales. Whenever the basis of reporting is changed, the taxpayer must submit a separate statement showing the amounts, at both the beginning and end of the taxable year, of (a) prepaid expenses, (b) income accrued but uncollected, (c) expenses accrued but unpaid and (d) income collected in advance.

The amendment to article 184, embodied in T. D. 2859, changes the basis of valuation for amortization purposes of property created for war purposes but having a useful value thereafter. Instead of the estimated reproduction cost as of April, 1919, the estimated value of the property to the taxpayer himself in terms of its actual use or employment in his going business is adopted. Such value, however, is in no case to be less than the sale or salvage value of the property. For the purposes of returns to be made in 1919, the preliminary estimate of the amount of such amortization shall in no case exceed 25 per cent. of the cost of the property.

That interest accrued or interest adjustments on Victory notes converted from one series to the other is to be treated as interest on the series on which it actually accrued is the sense of T. D. 2865.

Under T. D. 2869 two new articles, 92a and 312a, are inserted in regulation 45 as amendments thereto.

Article 92a determines when the wages of a nonresident alien are derived from sources within the United States. The wages of an alien seaman on a ship regularly engaged in foreign trade are not to be regarded as from sources within the United States, even though the ship flies the American flag, or although during a part of the time the ship touched at United States ports and remained there a reasonable time for the transaction of business.

Article 312a determines when alien seamen are to be regarded as residents.

T. D. 2870 amends article 1567, which relates to the exchange of stock of one corporation for stock of no greater par value in another corporation or other corporations where two or more corporations unite their

properties by merger, consolidation or other method of combination. The new material, which is shown below in italics, makes this article applicable to stock of no par value, where previously it did not apply thereto.

Instructions relative to the procedure to be followed by the collectors in the case of claims for refund or abatement are continued in T. D. 2871, which is an amplification of T. D. 2688 and an amendment to article 1036.

T. D. 2872 contains regulations relative to administrative accounting of the bureau of internal revenue and is of no importance to the taxpayer in computing his net income, and invested capital and in arriving at his tax.

The decision of the supreme court of the United States, under the act of 1913, published in T. D. 2876, determined that where a nonresident alien owned stocks, bonds and mortgages secured upon property in the United States, or payable by persons or corporations domiciled in the United States, and where the income therefrom was collected for and remitted to the nonresident alien by an agent domiciled in the United States and where the agent had physical possession of the certificates of stock, bonds and mortgages, the income therefrom is subject to income tax, because it was from "property owned" in the United States. Now, however, the income is taxable if from "sources within the United States," regardless of the *situs* of the income-producing property.

TREASURY RULINGS

(T. D. 2859, June 10, 1919.)

Amendment to paragraph numbered (3) *of article* 184, *final edition of regulations* 45, *dealing with the cost of war facilities which may be amortized.*

The paragraph numbered (3) in article 184 of the final edition of regulations 45, which reads as follows:

"(3) In the case of other property the basis is the estimated reproduction cost as of April, 1919, of such property in its then condition. In the final determination such cost will be ascertained under stable post-war conditions, without reference to such date,"

is hereby amended to read as follows:

(3) In the case of other property the basis for amortization calculation shall be the estimated value of the property to the taxpayer in terms of its actual use or employment in his going business, such value in no case to be less than the sale or salvage value of the property: *provided, however,* that in no case shall the preliminary estimate (for purposes of returns to be made in 1919) of the amount of such amortization exceed 25 per cent. of the cost of the property. In the final determination the amount of the amortization allowance will be ascertained upon the basis of stable post-war conditions under regulations to be promulgated when these conditions become apparent.

(T. D. 2865, June 14, 1919.)

Interest on Victory notes.

All interest accrued on 4¾ per cent. Victory notes at the date of any conversion by the taxpayer into 3¾ per cent. Victory notes will, for the purposes of computing net income, be deemed to be interest upon 4¾ per cent. Victory notes, and will be entitled only to the exemptions from

taxation to which interest on 4¾ per cent. Victory notes is entitled. Any and all amounts received by any taxpayer from the United States by way of adjustment of accrued interest upon conversion of 4¾ per cent. Victory notes into 3¾ per cent. Victory notes will be deemed to be interest upon 4¾ per cent. Victory notes.

All interest accrued on 3¾ per cent. Victory notes at the date of any conversion by the taxpayer into 4¾ per cent. Victory notes will, for the purposes of computing net income, be deemed to be interest upon 3¾ per cent. Victory notes, and will be entitled to the exemptions from taxation to which interest on 3¾ per cent. Victory notes is entitled.

(T. D. 2869, June 20, 1919.)

Alien seamen—Amendments to articles 92 and 312 of regulations 45.

The final edition of regulations 45 is amended by inserting immediately after article 92 a paragraph to be known as article 92a, as follows:

Art. 92a. *When the wages of a nonresident alien seaman are derived from sources within the United States.*—While resident alien seamen are taxable like citizens on their entire income from whatever sources derived, nonresident alien seamen are taxable only on income from sources within the United States. Ordinarily, wages received for services rendered inside the territorial United States are to be regarded as from sources within the United States. The wages of an alien seaman earned on a coast-wise vessel are from sources within the United States, but wages earned by an alien seaman on a ship regularly engaged in foreign trade are not to be regarded as from sources within the United States, even though the ship flies the American flag, or although during a part of the time the ship touched at United States ports and remained there a reasonable time for the transaction of its business. The presence of a seaman aboard a ship which enters a port for such purposes of foreign trade is merely transitory and wages earned during that period by a nonresident alien seaman are not taxable. There is no withholding from the wages of alien seamen unless they are nonresident within the rules laid down in articles 311 to 315. Even in the case of a nonresident alien seaman the employer is not obliged to withhold from wages unless those wages are from sources within the United States as defined above. As to when alien seamen are to be regarded as residents, see article 312a.

The final edition of regulations 45 is amended by inserting immediately after article 312 a paragraph to be known as article 312a, as follows:

Art. 312a. *Alien seamen, when to be regarded as residents.*—In order to determine whether an alien seaman is a resident within the meaning of the income tax law, it is necessary to decide whether the presumption of nonresidence is overcome by facts showing that he has established a residence in the territorial United States, which consists of the states, the District of Columbia, and the territories of Hawaii and Alaska, and excludes other places. Residence may be established on a vessel regularly engaged in coastwise trade, but the mere fact that a sailor makes his home on a vessel flying the United States flag and engaged in foreign trade is not sufficient to establish residence in the United States, even though the vessel, while carrying on foreign trade, touches at American ports. An alien seaman may acquire an actual residence in the territorial United States, within the rules laid down in article 312, although the nature of his calling requires him to be absent from the place where his residence is established for a long period. An alien seaman may acquire such a residence at a sailor's boarding house or hotel, but such a claim should be carefully scrutinized in order to make sure that such residence is bona fide. The filing of form 1078, revised, or taking out first citizenship papers, is proof of residence in the United States from the time the form is filed or

the papers taken out, unless rebutted by other evidence showing an intention to be a transient. The fact that a head tax has been paid on behalf of an alien seaman entering the United States is no evidence that he has acquired residence, because the head tax is payable unless the alien who is entering the country is merely in transit through the country. An alien may remain a nonresident although he is not in transit through the country. As to when the wages of alien seamen are subject to tax see article 92a.

(T. D. 2870, June 20, 1919.)

Income tax.

Amending article 1567, final edition of regulations 45, dealing with exchange of stock for stock having no par value, and fixing an aliquot part of the capital when required by statute to be stated, as the par value, for the purposes of section 202, of such so-called "no-par-value" stock.

The final edition of regulations 45 is amended by changing article 1567 to read as follows:

ART. 1567. *Exchange of stock for other stock of no greater par value.*—In general, where two (or more) corporations unite their properties by either (*a*) the dissolution of corporation B and the sale of its assets to corporation A, or (*b*) the sale of its property by B to A and the dissolution of B, or (*c*) the sale of the stock of B to A and the dissolution of B, or (*d*) the merger of B into A, or (*e*) the consolidation of the corporations, no taxable income is received from the transaction by A or B or the stockholders of either, provided the sole consideration received by B and its stockholders in (*a*), (*b*), (*c*) and (*d*) is stock or securities of A, and by A and B and their stockholders in (*e*) is stock or securities of the consolidated corporation, in any case of no greater aggregate par or face value than the old stock and securities surrendered. *So-called "no-par-value stock" issued under a statute or statutes which require the corporation to fix in a certificate or on its books of account or otherwise an amount of capital or an amount of stock issued which may not be impaired by the distribution of dividends, will for the purpose of this section be deemed to have a par value representing an aliquot part of such amount, proper account being taken of any preferred stock issued with a preference as to principal. In the case (if any) in which no such amount of capital or issued stock is so required, "no-par-value stock" received in exchange will be regarded for the purposes of this section as having in fact no par or face value, and consequently as having "no greater aggregate par or face value" than the stock or securities exchanged therefor.*

(T. D. 2871, June 21, 1919.)

Claims for refund or abatement.

Procedure to be followed by collectors with respect to claims for refund or abatement. Extension of T. D. 2688. Amendment to article 1036, regulations 45.

(1) Claims for refund or for abatement, pertaining to tax returns which have not at the time been posted to an assessment list, will be numbered to agree with, attached to, and made a part of, the original return so that the total tax as posted on the assessment list will be the admitted tax liability of the taxpayer. If a taxpayer submits an amended return as a claim either for refund or for abatement before the original return has been listed, such amended return will be numbered to agree with and attached to the original return in the same manner. Similarly, errors or omissions in returns discovered by the collector prior to the posting operate as an amendment to the amount of tax liability shown by the return.

In other words, all amendments or changes, either increasing or decreasing the amount of tax liability and whether originated by the taxpayer or by the collector, will be reflected on the face of the return itself and the posting to the assessment list will be of the correct amount. In this connection attention is called to the provision of mim. 2124.

(2) Amended returns showing a reduced tax liability will not be acted upon by collectors if the original return has been previously entered on the assessment list. All claims pertaining to returns which have been listed for assessment must be submitted on form 46, if the tax has been paid, or on form 47 if the tax has not been paid.

(3) The following classes of claims may be included on form 751 (if for refund), or blanket form 47 (if for abatement). Separate sheets properly designated of forms 751 or blanket forms 47 must be prepared for returns on file in the commissioner's office and those on file in the collector's office.

(*a*) All claims for refund or abatement pertaining to form 1040—A income returns for the calendar year 1918 or subsequent years.

(*b*) Errors in computation (these include only mistakes in arithmetic).

(*c*) Errors in *specific* exemptions on income returns. (These include such items as failure to deduct exemptions for dependents, the $2,000 exemption for corporations, etc.)

(*d*) Payments in excess of the total amount of tax due as shown by the return. (These include such cases as a remittance of $1,500 covering payment of a tax liability of $1,300, etc.)

(*e*) Amount previously paid on submission of a tentative income return in excess of the total tax liability shown by the final return.

(*f*) Duplicate payments or assessments.

(*g*) All claims for refund on account of nonrevenue remittances forwarded to the collector in error and deposited by him. (These include such items as state or municipal taxes sent to the collector and deposited by him as "unidentified," etc.)

(4) All claims for refund or abatement other than those enumerated above will be forwarded to the commissioner for settlement. However, *any* claim may be so forwarded whenever the collector does not feel absolutely certain of the law, regulations, or precedent involved, or if his disbursing bond is insufficient to enable him to procure an advance on accountable warrant of the requisite amount of funds from which to make payment.

(5) Before forwarding claims to the commissioner for settlement, certification must be made on the claim of the account number, the amount of tax originally due, the dates and amounts of all payments or other transactions affecting such amount, and the balance due as shown by the account on the list. All claims of this nature now on file in the collector's office and hereafter as received should be certified and forwarded immediately.

(6) Claims submitted by taxpayers direct to the commissioner will in future be referred to the collector for this certificate as to the status of the account on the assessment list. Until so certified by the collector such claims will not be settled. When certifying claims for refund the collector will make a notation in the "remarks" column of the date and amount of the refund claim, but no record will be made on the tax journals unless a credit balance exists in the taypayer's account. In this case, the amount of the claim as certified will be posted to the list and recorded on the journal in the same manner as though payment were made by the collector.

(7) In all cases where abatement claims are certified by the collector, notation will be made on the assessment list of the date on which the

abatement claim was filed and the amount thereof, and on the daily journals, form 769. (See paragraph 49, *Manual of Revenue Accounting.*)

(8) Blanket claims for abatement of uncollectible items, form 53; may be filed by the collector as heretofore. The same record will be made on the tax journal and on the assessment list as in cases where the taxpayers submit such claims, the only difference being that in the first instance the claim originates with the taxpayer instead of with the collector.

(9) The last two sentences of article 1036, regulations 45 (final edition), are to be replaced by the following:

"In certain cases of overpayment by taxpayers the collector may repay the excess after allowance by the commissioner of a claim for refund made by the collector on form 751. The cases in which refund is made through collectors are covered by specific provisions not herein incorporated. The commissioner has no authority to refund on equitable grounds penalties legally collected."

(10) All existing regulations in conflict with the above are hereby revoked.

(T. D. 2872, June 20, 1919.)

Accounting.

Regulations pertaining to administrative accounting, effective July 1, 1919.

The following regulations pertaining to administrative accounting of the bureau of internal revenue, effective July 1, 1919, are published for the information of all concerned:

(1) No expense shall be incurred or disbursement made by any administrative or disbursing officer of the internal revenue service involving an internal revenue appropriation unless an allowance therefor has previously been granted by the secretary of the treasury, or by his authority, upon the recommendation of the commissioner of internal revenue (but as to indefinite appropriations see par. 10 of these regulations). In cases of emergency, requests for such allowance or the preliminary notification of the granting thereof, or both, may be made by telegraph.

(2) The grants of allowances, as well as withdrawals of same, must be made through the medium of standard forms provided therefore (see par. 7), and no charges encumbering appropriations will be made in the division of accounts or credits allowed for disbursements made unless the formal allowance documents covering same have been received in said division.

(3) It is hereby ordered that the administration of the granting of allowances (above referred to) shall, in case of allowances for the internal revenue field service, be centralized in (*a*) supervisor of collectors' offices and (*b*) chief of revenue agents, and all requests for such allowances will be made upon the commissioner through these offices. The issuing of the grants of said allowances, through the medium of the formal allowance documents, will be centralized in (*c*) division of appointments and (*d*) division of supplies and equipment.

(*a*) The supervisor of collectors' offices will have jurisdiction over the granting of all allowances for salaries and expenses of officers and employees, for supplies and equipment, and for other requirements, of collectors' offices. (See also par. 3 (*c*).)

(*b*) The chief of revenue agents will have jurisdiction over the granting of all allowances for salaries and expenses of officers and employees, for supplies and equipment and for other requirements of the offices of revenue agents in charge.

(*c*) The division of appointments will have jurisdiction over the issuing of the formal allowance documents covering the salaries and expenses of internal revenue officers and employees in the field service. Expenses will

include those for railroad and other fares (whether paid by reimbursing the traveler or by auditor's settlement upon transportation requests), for subsistence (whether on actual expense or per diem basis), and any other travel or other expenses personal to officers and employees. Said division, under the immediate direction of the assistant to the commissioner, will keep all files and records relating to appointments in the field, as well as in the bureau, and it will execute decisions as to field appointments, but will not exercise discretion with respect to any appointment, promotion, or separation from the service of any officer or employee. This discretion is lodged in the supervisor of collectors' offices and the chief of revenue agents' office, subject to the discretion of the commissioner. (See also paragraphs 3 (*a*) and 4 (*a*).)

(*d*) The division of supplies and equipment will have jurisdiction over the issuing of the formal documents covering all allowances for the field service other than those named in paragraph 3 (*c*) above, including supplies and equipment, freight and express transportation, rentals, printing and binding, and miscellaneous expenses other than personal. (See also paragraph 4 (*b*).)

As requests for allowances are received from the field service and indorsed by the supervisor of collectors' offices and the chief of revenue agents, within their respective jurisdictions, said requests will be transmitted to the division of appointments in case of allowances named in paragraph 3 (*c*), and to the division of supplies and equipment in case of allowances named in paragraph 3 (*d*), where the formal allowance documents will be prepared and submitted to the commissioner for approval.

(4) It is further ordered that the administration of the granting of all allowances for the bureau of internal revenue at Washington shall be centralized in (*a*) division of appointments, and (*b*) division of supplies and equipment, and all requests for said allowances will be made upon the commissioner through these divisions.

(*a*) The division of appointments will have jurisdiction over the granting of allowances for salaries and expenses of bureau officers and employees. (See also paragraph 3 (*c*).)

(*b*) The division of supplies and equipment will have jurisdiction over the granting of all bureau allowances other than those for salaries and expenses of bureau officers and employees. (See also paragraph 3 (*d*).)

(5) All allowances will be divided into two classes, viz, (*a*) annual allowances, (*d*) special allowances.

(*a*) Annual allowances comprise those covering fixed charges which recur regularly from month to month and which are granted for the full fiscal year or such portion thereof as is unexpired at the time of their becoming effective. Charges which accrue irregularly, although made to cover the period of the fiscal year, or which are not paid regularly each month, should not be classed as annual allowances. All unused balances of the monthly portion or allotment of annual allowances will be regularly liquidated by the division of accounts and become available for allowance under the respective appropriations for other purposes. Salaries and fixed allowances of permanent employees are the most common examples of annual allowances.

(*b*) Special allowances comprise those which are not included in the above definition of annual allowances, and which are made for some special purpose or on account of which charges accrue or payments are made irregularly, or both. Balances of special allowances will be carried in the division of accounts, against which all payments will be checked, and any final balances will be liquidated and made available for allowance for other purposes. To this end it is important that disbursing agents in reporting payments upon the schedules shall indicate when they are final as to each

special allowance. Salaries and travel allowances of temporary employees, office supplies and equipment, leases, printing, and lump sums for miscellaneous expenses are examples of special allowances.

(6) Withdrawals of annual and special allowances, in whole or in part, will, in case of each class of allowances, be covered by separate series of forms; which will be issued by the division of appointments and the division of supplies and equipment as provided in case of the granting of annual and special allowances.

(7) For the purpose of granting and withdrawing allowances the following forms are provided and their use enjoined: form 7367, "grant of annual allowances"; form 7369, "grant of special allowances"; form 7368, "withdrawal of annual allowances"; form 7370, "withdrawal of special allowances"; form 62, "purchase or stores requisition upon the chief clerk of the treasury department."

These forms will be serially numbered and kept in stock in the blank room of the bureau and the custodian thereof will be held responsible for the care and duly authorized issue of such forms. As required for issue, said forms will be supplied upon requisition therefor and the division of accounts notified of the numbers of the blanks so issued and to whom issued. The division of accounts will keep a check upon the allowance forms thus issued, and require that all numbered sheets be accounted for.

(8) Copies of all allowances granted and withdrawn will be furnished each day, as designated upon the printed forms, (*a*) to disbursing agents in the field service who are to pay the amounts of allowances granted, or to the proper requisitioners in case of the bureau service at Washington, (*b*) to the division of accounts, (*c*) to the auditor for the treasury department, except that, in lieu of furnishing copies of form 62 to the auditor, a copy of each order (chief clerk, treasury department, form 20A) based upon the requisitions made on said form 62 will continue to be furnished to the division of accounts, to be subsequently sent to the auditor with the voucher to which it pertains; (*d*) one copy to be retained as an office copy by the issuing division.

(9) In writing up allowance documents it is essential not only that the necessary details be given respecting the items sought to be allowed, as provided for upon the standard forms or as may be required, but that the documents show in every case the exact amount for which it is proposed to charge an appropriation. Separate documents will be used for each appropriation.

(10) Nothing in these regulations shall be construed to change the present method of estimating and allowing expenses or making an accounting for disbursements under indefinite appropriations, whether permanent (e. g., refunding taxes illegally collected) or annual (e. g., increase of compensation).

(11) These regulations will take effect beginning with the new fiscal year, July 1, 1919—June 30, 1920, and thereafter disbursing agents will be required to submit their accounts current (form 44) and schedules of disbursements (form 63, revised) *in duplicate,* one copy for the auditor and one copy to be retained in the files of the division of accounts.

(T. D. 2873, June 24, 1919.)

Income and excess profits taxes.

Modification of article 23, regulations 45, bases of computation of net income.

Article 23, regulations 45, is modified to read as follows:

ART. 23. *Bases of computation.*—(1) Approved standard methods of accounting will ordinarily be regarded as clearly reflecting income. A method of accounting will not, however, be regarded as clearly reflecting

income unless all items of gross income and all deductions are treated with reasonable consistency. See section 200 of the statute for definitions of "paid," "paid or accrued," and "paid or incurred." All items of gross income shall be included in the gross income for the taxable year in which they are received by the taxpayer, and deductions taken accordingly, unless in order clearly to reflect income such amounts are to be properly accounted for as of a different period. *For instance, in any case in which it is necessary to use an inventory, no accounting in regard to purchases and sales will correctly reflect income except an accrual method.* See section 213 (a) of the statute. A taxpayer is deemed to have received items of gross income which have been credited to or set apart for him without restriction. See article 53. On the other hand, appreciation in value of property is not even an accrual of income to a taxpayer prior to the realization of such appreciation through conversion of the property.

(2) For the taxable year 1918 the true income, computed under the revenue act of 1918, and where the taxpayer keeps books of account in accordance with the method of accounting regularly employed in keeping such books, shall in all cases be entered in the return, even though this results in apparent omissions or duplications of particular items of income or expense. In the ordinary case such omissions and duplications are more apparent than real and are likely to counterbalance one another, so that the change in the basis of reporting calls for no material adjustment. Where, however, the method previously employed by the taxpayer in determining his income subject to the tax is materially different from the method regularly used by the taxpayer in keeping his accounts, or where for any reason the basis of reporting income subject to tax is changed, the taxpayer should attach to his return a separate statement setting forth for the taxable year and for the preceding year the classes of items differently treated under the two systems, specifying in particular all amounts duplicated or entirely omitted as the result of such change. Where, for example, a taxpayer who, prior to 1918, has reported on the so-called receipts basis is compelled under the above rule to report on the so-called accrual basis, he should include in the separate statement the following information:

First, (a) expenses paid before the end of the taxable year 1917, but not accrued at that date; (b) income accrued at the end of the taxable year 1917 but not received at that date; (c) expenses accrued at the end of the taxable year 1917 but not paid at that date; (d) income received before the end of the taxable year 1917 but not accrued at that date; and

Second, similar items as of the end of the taxable year 1916.

If in the opinion of the commissioner such information indicates that the returns for any previous years did not reflect the true income, amended returns for such years *will* be required.

(3) A taxpayer who changes the method of accounting employed in keeping his books for the taxable year 1919 or thereafter shall, before computing his income upon such new basis for purposes of taxation, secure the consent of the commissioner. Application for permission to change the basis of the return shall be made at least 30 days in advance of the date of filing return and shall be accompanied by a statement specifying the classes of items differently treated under the two systems and specifying all amounts which would be duplicated or entirely omitted as a result of the proposed change.

(4) Bank discounts.—Banks which in the past have treated discount as income before it was actually earned, and during the taxable year 1918 have placed the discount account upon an accrual basis, will be required to submit the information called for in paragraph 2 above and submit an amended return for the taxable year 1917, and will be permitted to submit (or the commissioner may require) amended returns for all prior years

during which the taxpayer was subject to tax. Additional taxes for prior years found to be due upon such reexamination will be paid upon the basis of the amended returns in the ordinary way. Where it appears that prior taxes have been paid in excess of the amount properly due, such excess will, to the extent possible, be credited against future income and profits taxes under the provisions of section 252 of the revenue act of 1918.

(T. D. 2876, June 25, 1919.)

Income tax—Nonresident aliens—Decision of court.

1. Income Taxes—Nonresident Aliens—Property Owned in United States.

The income received by a nonresident alien from stocks and bonds of corporations organized under the laws of the United States and bonds and mortgages secured upon property in the United States, the certificates representing the same being held by a Philadelphia trust company under a power of attorney which gave authority to the agent to sell, assign, or transfer any of them and to invest and reinvest the proceeds, is property owned in the United States within the meaning of the act of October 3, 1913.

2. Judgment Reversed.

Judgment of the district court for the eastern district of Pennsylvania (239 Fed., 568) reversed.

The appended decision of the United States supreme court in the case of *Emily R. De Ganay v. Lederer, collector,* is published for the information of internal-revenue officers and others concerned.

Supreme Court of the United States. October Term, 1918. No. 319.

Emily R. De Ganay v. Ephraim Lederer, collector of internal revenue. Certificate from the United States circuit court of appeals for the third circuit.

[June 9, 1919.]

Mr. Justice Day delivered the opinion of the court:

The act of October 3, 1913 (c. 16, sec. 2a, subdivision 1, 38 Stat., 166) provides—

That there shall be levied, assessed, collected, and paid annually upon the entire net income arising or accruing from all sources in the preceding calendar year to every citizen of the United States whether residing at home or abroad, and to every person residing in the United States, though not a citizen thereof, a tax of 1 per centum per annum upon such income, except as hereinafter provided; and a like tax shall be assessed, levied, collected, and paid annually upon the entire net income from all property owned and of every business, trade, or profession carried on in the United States by persons residing elsewhere.

Under this statutory provision a question arose as to the taxability of income from certain securities of Emily R. De Ganay, a citizen and resident of France. The district court of the United States for the eastern district of Pennsylvania held the income from the securities taxable. (239 Fed., 568.) The case is here upon certificate from the circuit court of appeals from which it appears that Emily R. De Ganay is a citizen of France, and resides in that country, that her father was an American citizen domiciled in Pennsylvania, and died in 1885, having devised one-fourth of his residuary estate, consisting of real property, to the Pennsylvania Co. for Insurance on Lives and Granting Annuities, in trust to pay the net income thereof to her. She also inherited from her father a large amount of personal property in her own right free from any trust. This personal

property is invested in stocks and bonds of corporations organized under the laws of the United States and in bonds and mortgages secured upon property in Pennsylvania. Since 1885 the Pennsylvania company has been acting as her agent under power of attorney, and has invested and reinvested her property, and has collected and remitted to her the net income therefrom. The certificates of stocks, bonds, and mortgages have been and were in 1913 in the company's possession in its offices in Philadelphia. The company made a return of the income collected for the plaintiff for the year 1913 both from her real estate, which is not in controversy here, and her net income from corporate stocks and bonds, and bonds and mortgages held by her in her own right. The tax was paid under protest and recovery was sought by the proper action.

The question certified is limited to the net income collected by virtue of the power of attorney from the personal property owned by the plaintiff in her own right.

The power of attorney, which is attached to the certificate, authorizes the agent—

To sell, assign, transfer any stock, bonds, loans, or other securities now standing or that may hereafter stand in my name on the books of any and all corporations, national, state, municipal, or private, to enter satisfaction upon the record of any indenture or mortgage now or hereafter in my name, or to sell and assign the same and to transfer policies of insurance, and the proceeds, also any other moneys to invest and reinvest in such securities as they may in their discretion deem safe and judicious to hold for my account; to collect and receipt for all interest and dividends, loans, stocks, or other securities now or hereafter belonging to me, to indorse cheques payable to my order and to make or enter into any agreement or agreements they may deem necessary and best for my interest in the management of my business and affairs, also to represent me and in my behalf to vote and act for me at all meetings connected with any company in which I may own stocks or bonds or be interested in any way whatever, with power also as attorney or attorneys under it for that purpose to make and substitute, and to do all lawful acts requisite for effecting the premises, hereby ratifying and confirming all that the said attorney or substitute or substitutes shall do therein by virtue of these presents.

The question certified is, If an alien nonresident owns stocks, bonds, and mortgages secured upon property in the United States or payable by persons or corporations there domiciled; and if the income therefrom is collected for and remitted to such nonresident by an agent domiciled in the United States, and if the agent has physical possession of the certificates of stock, the bonds, and the mortgages, is such income subject to an income tax under the act of October 3, 1913?

The question submitted comes to this, Is the income from the stocks, bonds, and mortgages held by the Pennsylvania company derived from property owned in the United States? A learned argument is made to the effect that the stock certificates, bonds, and mortgages are not property, that they are but evidences of the ownership of interests which are property; that the property, in a legal sense, represented by the securities, would exist if the physical evidences thereof were destroyed. But we are of opinion that these refinements are not decisive of the congressional intent in using the term "property" in this statute. Unless the contrary appears, statutory words are presumed to be used in their ordinary and usual sense, and with the meaning commonly attributable to them. To the general understanding and with the common meaning usually attached to such descriptive terms, bonds, mortgages, and certificates of stock are regarded as property. By state and federal statutes they are often treated as property, not as mere evidences of the interest which they represent. In

Blackstone v. Miller (188 U. S., 189, 206) this court held that a deposit by a citizen of Illinois in a trust company in the city of New York was subject to the transfer tax of the state of New York and said:

There is no conflict between our views and the point decided in the case reported under the name of "State tax on foreign-held bonds" (15 Wall., 300). The taxation in that case was on the interest on bonds held out of the state. Bonds and negotiable instruments are more than merely evidences of debt. The debt is inseparable from the paper which declares and constitutes it, by a tradition which comes down from more archaic conditions. *Bacon v. Hooker* (177 Mass., 335, 337).

The court of appeals of New York, recognizing the same principle, treated such instruments as property in *People ex rel. Jefferson v. Smith* (88 N. Y., 576, 585):

It is clear from the statutes referred to and the authorities cited and from the understanding of business men in commercial transactions, as well as of jurists and legislators, that mortgages, bonds, bills, and notes have for many purposes come to be regarded as property and not as the mere evidences of debts, and that they may thus have a situs at the place where they are found like other visible, tangible chattles.

We have no doubt that the securities herein involved are property. Are they property within the United States? It is insisted that the maxim "mobilia sequuntur personam" applies in this instance, and that the situs of the property was at the domicile of the owner in France. But this court has frequently declared that the maxim, a fiction at most, must yield to the facts and circumstances of cases which require it, and that notes, bonds, and mortgages may acquire a situs at a place other than the domicile of the owner and be there reached by the taxing authority. It is only necessary to refer to some of the decisions of this court. *New Orleans v. Stempel* (175 U. S., 309); *Bristol v. Washington County* (177 U. S., 133); *Blackstone v. Miller,* supra; *State Board of Assessors v. Comptoir National D'Escompte* (191 U. S., 388); *Carstairs v. Cochran* (193 U. S., 10); *Scottish Union & National Insurance Co. v. Bowland* (196 U. S., 611); *Wheeler v. New York* (233 U. S., 434, 439); *Iowa v. Slimmer* (248 U. S., 115, 120). Shares of stock in national banks, this court has held, for the purpose of taxation, may be separated from the domicile of the owner and taxed at the place where held. *Tappan v. Merchants National Bank* (19 Wall., 490).

In the case under consideration the stocks and bonds were those of corporations organized under the laws of the United States and the bonds and mortgages were secured upon property in Pennsylvania. The certificates of stock, the bonds, and mortgages were in the Pennsylvania company's offices in Philadelphia. Not only is this so, but the stocks, bonds, and mortgages were held under a power of attorney which gave authority to the agent to sell, assign, or transfer any of them and to invest and reinvest the proceeds of such sales as it might deem best in the management of the business and affairs of the principal. It is difficult to conceive how property could be more completely localized in the United States. There can be no question of the power of congress to tax the income from such securities. Thus situated and held, and with the authority given to the local agent over them, we think the income derived is clearly from property within the United States within the meaning of congress as expressed in the statute under consideration.

It follows that the question certified by the circuit court of appeals must be answered in the affirmative. So ordered.

Mr. Justice McReynolds took no part in this case.

Students' Department

EDITED BY SEYMOUR WALTON
(ASSISTED BY H. A. FINNEY)

In regard to the following attempt to present the correct answers to the questions asked in the examination held by the American Institute of Accountants in May, 1919, the reader is cautioned against accepting the answers as official. They have not been seen by the examiners—still less endorsed by them.

AMERICAN INSTITUTE EXAMINATION

THEORY AND PRACTICE, PART II.

Question 1:

The following trial balance of the B. C. Cotton Company is taken from the books after inventories and deferred charges have been posted. The accounts are ready to close for the period. The consigned goods account has been inactive for six months and will continue so for the present. Prepare statement to show for the quarter ended March 30, 1918, total manufacturing expenses, cost of goods made, cost of goods sold and net profit, and submit a balance-sheet as of March 30, 1918.

TRIAL BALANCE

	Dr.	Cr.
Cloth		268,337.28
Labor	33,862.99	
Light	132.72	
Royalties	50.00	
Oils	38.62	
Finishing	7,455.55	
Cash	119,126.06	
Liberty bonds	1,000.00	
Supplies	1,276.06	
Starch	800.00	
Fuel	1,455.99	
Water	202.24	
Freight inward	1,353.99	
Accounts receivable	63,492.58	
Accounts payable		313.45
Notes payable		225,000.00
Building and machinery	341,378.14	
Tenements	1,610.99	
Insurance	350.00	
Taxes	567.71	
General expense	542.88	
Rents receivable		378.87
Commissions	7,121.42	
Interest paid	2,539.90	
Discount taken		4,016.26
Purchases, material	162,403.68	
Surplus		168,866.14
Discount allowed	899.50	
Capital stock		362,500.00
Waste sales		1,401.39

Inventory, finished goods	3/30	114,069.57	
Inventory, process	3/30	31,464.02	
Inventory, materials	3/30	113,860.99	
Inventory, fuel	3/30	1,250.00	
Inventory, starch	3/30	800.00	
Inventory, supplies	3/30	1,300.00	
Prepaid taxes	3/30	208.96	
Unexpired insurance	3/30	660.41	
Prepaid interest	3/30	5,100.00	
Consigned goods	3/30	14,438.42	
		1,030,813.39	1,030,813.39

Inventories of finished goods have been credited to cloth account and inventories of goods in process and materials to purchase account.

INVENTORIES JANUARY 1, 1918

Finished goods, January 1, 1918	132,833.85
Goods in process, January 1, 1918	22,258.01
Materials, January 1, 1918	143,566.55

Answer to Question 1:

In order to give the information which is asked for it is necessary to eliminate the inventories from the cloth account and purchase account.

Cloth account, as given		268,337.28
Add inventory finished goods, 1/1/18		132,833.85
		401,171.13
Less inventory finished goods 3/30/18		114,069.57
Sales for period		287,101.56
Purchases, material account, as given		162,403.68
Add inventory process goods 3/30/18	31,464.02	
Inventory material 3/30/18	113,860.99	145,325.01
		307,728.69
Less inventory process goods 1/1/18	22,258.01	
Inventory material 1/1/18	143,566.55	165,824.56
Purchases for period		141,904.13

With these figures at hand the statements asked for may be prepared as per the following exhibits.

EXHIBIT A

B. C. COTTON COMPANY

Profit and Loss Statement

January 1, 1918, to March 30, 1918

Cloth sales	287,101.56	
Deduct: cost of goods sold (exhibit B)	227,312.44	
Gross profit on sales		59,789.12

Selling and general expense:			
Commissions		7,121.42	
General expense		542.88	7,664.30
Net profit on operations			52,124.82
Discount, interest, rents.			
Add:			
Discounts taken	4,016.26		
Less discounts allowed	899.50	3,116.76	
Rents received		378.87	
		3,495.63	
Less interest paid		2,539.90	955.73
Net profit—January 1, 1918, to March 30, 1918			53,080.55

SURPLUS

March 30, '18, balance	221,946.69
	221,946.69
Jan. 1, '18, balance	168,866.14
Mar. 30, '18, profit as above	53,080.55
	221,946.69

EXHIBIT B

B. C. COTTON COMPANY

Statement Showing Cost of Manufacture, Cost of Goods Sold and Manufacturing Expense

January 1, 1918 to March 30, 1918

Goods in process, Jan. 1, 1918				22,258.01
Cost of manufacture:				
Material:				
Inventory, Jan. 1, 1918		143,566.55		
Purchases	141,904.13			
Freight inward	1,353.99	143,258.12		
		286,824.67		
Less inventory, Mar. 30, 1918		113,860.99		
Gross cost materials used		172,963.68		
Less waste sales		1,401.39		
Net cost of material used			171,562.29	
Labor			33,862.99	

Manufacturing expenses:			
Light	132.72		
Royalties	50.00		
Oils	38.62		
Finishing	7,455.55		
Supplies	1,276.06		
Starch	800.00		
Fuel	1,455.99		
Water	202.24		
Insurance	350.00		
Taxes	567.71	12,328.89	217,754.17
			240,012.18
Deduct: goods in process: Mar. 30, 1918			31,464.02
Cost of goods manufactured			208,548.16
Add: finished goods inventory, Jan. 1, 1918			132,833.85
			341,382.01
Deduct: finished goods inventory Mar. 30, 1918			114,069.57
Cost of goods sold			227,312.44

EXHIBIT C

B. C. Cotton Company

Balance-sheet

March 30, 1918

Assets

Fixed assets:		
Building and machinery		341,378.14
Investments:		
Liberty bonds	1,000.00	
Tenements	1,610.99	2,610.99
Current assets:		
Inventories:		
Finished goods	114,069.57	
Consigned goods	14,438.42	
Goods in process	31,464.02	
Material	113,860.99	
Fuel	1,250.00	

Liabilities

Current liabilities:		
Accounts payable	313.45	
Notes payable	225,000.00	225,313.45
Capital stock and surplus:		
Capital stock	362,500.00	
Surplus	221,946.69	584,446.69

Starch	800.00		
Supplies	1,300.00		
	277,183.00		
Accounts receivable	63,492.58		
Cash	119,126.06	459,801.64	
Deferred charges:			
prepaid taxes	208.96		
Unexpired insurance	660.41		
Prepaid interest	5,100.00	5,969.37	
		809,760.14	809,760.14

The only point to be noted is the treatment of the sale of waste. Some would consider this an item of miscellaneous income like the rent from the tenements. Since the waste is a saving from the material used, it seems more logical to consider it a reduction of the cost of that material.

Question 2:

From the following statement of facts set up the trial balance of the Broad Exchange bank, December 31, 1918, after closing, and prepare therefrom a condensed statement of condition as of the same date:

Due from banks, $74,975; time certificates of deposit, $10,000; cashier's cheques, $496,349.75; re-discounts, $400,000; customers' loans, $500,000; bills purchased, $550,000; exchanges for clearing house, $320,000; due to banks, $834,000; certified cheques, $12,500; cash, $956,750; demand certificates of deposit, $2,500; transit department, $100,000; on deposit with Federal Reserve bank, New York, $48,500; demand loans, $125,000; time loans, $80,000; bonds and mortgage owned, $100,000; coupon deposits, $3,750; on deposit with National City bank, $53,062.50; depositors, $765,910; banking house, $200,000; furniture and fixtures, $25,000; capital stock issued and outstanding, $500,000; securities owned, $96,812.50; surplus, $201,090.25; accrued interest receivable, $1,075; interest purchased, $125; unearned discount, $5,200.

Answer to Question 2:

Trial Balance, Broad Exchange Bank, December 31, 1918

Customers' loans	500,000.00
Bills purchased	550,000.00
Demand loans	125,000.00
Time loans	80,000.00
Bonds and mortgages	100,000.00
Securities	96,812.50
Banking house	200,000.00
Furniture and fixtures	25,000.00
Due from banks	74,975.00
National City bank	53,062.50

Federal Reserve bank, New York	48,500.00	
Transit items	100,000.00	
Exchanges for clearing house	320,000.00	
Cash	956,750.00	
Accrued interest receivable	1,075.00	
Interest purchased	125.00	
Capital stock		500,000.00
Surplus		201,090.25
Due to banks		834,000.00
Depositors		765,910.00
Demand certificates of deposit		2,500.00
Time certificates of deposit		10,000.00
Coupon deposits		3,750.00
Certified cheques		12,500.00
Cashier's cheques		496,349.75
Notes re-discounted		400,000.00
Unearned discount		5,200.00
	3,231,300.00	3,231,300.00

Broad Exchange Bank

Condensed statement of condition, December 31, 1918

Assets		*Liabilities*	
Loans	1,255,000.00	Capital stock	500,000.00
Bonds and mortgages	100,000.00	Surplus	201,090.25
Securities	96,812.50	Unearned interest, net	4,000.00
Banking house	200,000.00	Due to banks	834,000.00
Furniture and fixtures	25,000.00	Demand deposits	768,410.00
Due from banks	276,537.50	Time and special deposits	13,750.00
Cash and clearing house cheques	1,276,750.00	Certified and cashier's cheques	508,849.75
		Notes re-discounted	400,000.00
	3,230,100.00		3,230,100.00

Question 3:

Define:

(a) Treasury stock
(b) Nominal accounts
(c) Accrued interest
(d) Controlling account
(e) Deferred charges.

Answer to Question 3:

(a) Treasury stock is such portion of the capital stock of a corporation as has been fully paid for and legally issued and has since been acquired by the issuing corporation, either by purchase or by donation.

(b) Nominal accounts represent those items which are temporarily carried among the assets and liabilities, but are only nominally such, as representatives of the increase or decrease of the net worth. They therefore represent the profits or losses and expenses of a business and are closed into the revenue account, the final result of which represents the net profit or loss in one amount.

(c) Bonds and sometimes notes bear interest payable at specified future dates. This interest accrues from day to day and becomes an asset due at the next specified date in the case of bonds or notes owned and a liability in case of those issued, in proportion to the number of days that have elapsed since the beginning of the interest period as compared with the total number of days in the period.

(d) A controlling account is an account kept on the general ledger which represents in one account the sum of all the transactions and of all the balances of a group of accounts kept on another ledger or other book called a subsidiary. The subsidiary book is not always a ledger, but may be a record of individual items, such as a notes receivable register or voucher record.

(e) Deferred charges are in reality expenses, but differ from those which are at once chargeable against revenue, in that they were not incurred for the current year alone but were intended to benefit one or more future years as well. They therefore hold an intermediate position between real assets and ordinary expenses. Such an item is an insurance premium paid October 1 covering a year from that date. As three-quarters of the time covered is in the next year, three-quarters of the premium paid may be carried forward as an asset under the head of deferred charges if the books are closed at the end of the calendar year.

When the organization expenses of a concern have been large, it is manifestly unfair to charge them all off against the first year's operations, since subsequent years will receive an equal benefit from them, if they are legitimate and proper. Therefore they can be carried as an asset, to be charged off during as many years as would be reasonable.

Question 4:

What should be the controlling factor in determining whether or not certain items may properly be capitalized?

Answer to Question 4:

The controlling factor in determining whether or not an item shall be capitalized—that is included among the fixed assets in which the capital is invested—is whether it constitutes an addition to the actual value of the permanent property of a business, either in the shape of entirely new fixed assets such as a new building or new machinery or of such actual additions to fixed assets already in existence as will cause a distinct increase in their intrinsic value.

Alterations to fixed assets which increase their intrinsic value should not be permanently capitalized, neither should they be charged off at once

as an expense. As their effect is to increase future profits they should be gradually charged off against those profits, and in the meantime should be carried as deferred charges, or as betterments.

Question 5:

(a) How should a trading company, acting also as agent for an individual trader, show on its balance-sheet the unsold consigned goods of the principal?

(b) How should the principal show the goods on his own balance-sheet?

Answer to Question 5:

(a) As a consignee is in possession of the goods merely as an agent and has no title to them, they are neither an asset nor the cause of a liability. Therefore no notice of the goods should be taken on the balance-sheet, which is a statement of assets and liabilities. If any advances have been made on the goods, the amount would appear as an asset under the heading "advances on consignments."

(b) The principal should show the goods as an item of the inventories, at cost plus any expenses incurred in putting them in the hands of the agent.

Question 6:

Name the elements essential to the proper calculation of a depreciation charge.

Answer to Question 6:

Original cost, including all the elements of cost necessary to bring it to a condition in which it is ready to produce value.

Probable life, estimated on the basis of the character of the asset and the conditions attendant upon its use.

Repairs, since an asset that is kept in first class repair does not depreciate as fast as one that is not.

Danger of obsolescence, unless provided for by a special reserve for contingencies, such as obsolescence or inadequacy.

Break-up or scrap value, since the loss from depreciation is lessened by the amount realized from the asset when finally discarded.

Question 7:

How would you prove in quantities the inventory of materials at beginning of year if you had superintended an actual inventory at end of year?

Answer to Question 7:

I could do this only in case I could get the necessary information from the records or from the working conditions. If the concern is making standard goods, the quantity of each class of material per unit in each class of product multiplied by the number of units manufactured during the year would give the quantity of material consumed, due consideration being given to the material in the goods in process. The inventory at the end of the year plus the quantity consumed during the year, minus the purchases during the year should give the quantity on hand at the begin-

ning of the year. If the records do not show the quantity used during the year or if the quantity in the different units varies so that there is no regularity about it, no figures could be produced that would be trustworthy.

Question 8:

Give journal entry to express declaration of a dividend.

Answer to Question 8:

Surplus	xxx	
Dividend No..........		xxx
To record declaration of dividend of.................. per cent. on capital stock, payable.................to stockholders of record.............., as per resolution of the board of directors at meeting held............		

Question 9:

How would you treat unclaimed dividends?

Answer to Question 9:

It is usual to mail cheques for dividends to all the stockholders on the day on which the dividend is payable. If letters containing the cheques are not returned as undelivered, all the stockholders are presumed to have received them. If some of the cheques are not presented to the bank for payment, they must be treated like any other outstanding cheques, and no entry would be made on the books. If some of the cheques are returned undelivered, they may be deposited in the general bank account, being credited to "unclaimed dividends." They would be an active liability, since the stockholders are liable at any moment to appear and demand them.

If cheques are not sent out but stockholders are notified to call for their dividends or to send orders for them, the whole dividend would be credited to dividend account. Any dividends not called for would be represented by the credit balance of this account, which would appear as a liability in the balance-sheet.

Question 10:

Can you mention any distinction between dividends declared out of income and dividends declared out of profits realized from the increment of invested values?

Answer to Question 10:

There would be no distinction in the treatment on the books, the profits in either case being credited and the dividends charged to surplus. In notifying the stockholders of a dividend out of profits realized from the increment in invested values, the directors should be very careful to state the source of the dividend, in order that the stockholders may not get an exaggerated idea of the operating profits of the business.

It is to be noted that the question reads "profits *realized* from the increment in invested values." If the profits are realized, it must be that the assets have been sold. If the increment is merely the reflection of

a rise in market value, a dividend based on it would be unauthorized, since dividends must be predicated on actual profits and not on those which may be temporary only.

Question 11:

Define

(a) Contingent liability
(b) Actual liability

Answer to Question 11:

(a) A contingent liability is one that is not at present an enforceable claim but may become so, usually through the default or action of some third party. Examples are the endorsement on a note receivable that has been discounted, which will not become a claim unless the maker fails to pay it; claims for damages that may be settled adversely to the concern; and guarantees, such as those given by the makers of automobile tires, agreeing to replace the tires if they do not meet certain mileage requirements.

(b) An actual liability is one the amount of which is settled and must be paid in full at some more or less definitely fixed time or on demand. Such are ordinary accounts payable, notes payable and bonds.

Actuarial Questions (Optional)

Question 12:

A bond, bearing interest at 5% per annum, payable annually, and repayable in five years, with bonus of 10%, is for sale. What price can a purchaser pay who desires to realize 6% on his investment?

(V^5 @ 6% = .7473)

Answer to Question 12:

The purchaser of the bond can afford to pay the present value of the benefits which he will receive, which are (assuming the par of the bond is $1,000.00):

(a) The par plus a 10% bonus, or $1,100 due at maturity, five years hence.

(b) The interest payments of $50 to be collected at the end of each of five years.

Since the present value of 1 due 5 periods hence at 6% is .7473, the present value of $1,100.00 is .7473 × 1100, or $822.03.

The interest payments are an annuity, the present value of which is computed as follows:

Present value of 1 due 5 periods hence	.7473	
Compound discount	.2527	
Present value of annuity of 1 (.2527 ÷ .06) =	4.2116	
Present value of annuity of 50 (4.2116 × 50) =	210.58	
Present value of $1,100 at maturity		822.03
Present value of interest annuity		210.58
Price to be paid on a 6% basis		1,032.61

While not required by the question, it is desirable to set up a schedule of amortization to prove the answer.

Year	Credit interest	Debit cash	Debit bond account	Carrying value
				1,032.61
1	61.96	50.00	11.96	1,044.57
2	62.67	50.00	12.67	1,057.24
3	63.43	50.00	13.43	1,070.67
4	64.24	50.00	14.24	1,084.91
5	65.09	50.00	15.09	1,100.00
	317.39	250.00	67.39	

Note—not part of the answer. If the examinee does not remember the formula for calculating the present value of an annuity, he may find it by calculating the value of each payment separately, thus:

$50.00 \div 1.06 =$	47.17
$47.17 \div 1.06 =$	44.50
$44.50 \div 1.06 =$	41.98
$41.98 \div 1.06 =$	39.60
$39.60 \div 1.06 =$	37.36
Present value of annuity	210.61

Question 13:

A lease has five years to run at $1,000.00 a year payable at the end of each year, with an extension for a further five years at $1,200.00 a year. On a 6% basis what sum should be paid now in lieu of the ten years' rent?
(V^5 @ 6% = .7473)

Answer to Question 13:

The present value of the ten rents is computed as follows:

(a) Present value of an immediate annuity of 5 rents of $1,000 each, discounted at 6%.

(b) Present value of an annuity of 5 rents of $1,200 each, deferred for five periods.

(a) Since the present value of 1 due 5 periods hence at 6% = .7473, the compound discount is .2527.

and the present value of an annuity of 1 = 4.21167

and the present value of an annuity of 1000 = 4211.67

(b) If the five rents of $1,200 each were to be discounted at the beginning of the sixth year of the lease, their present value would be that of an ordinary annuity, computed thus:

Present value of annuity of 1	4.21167
Multiply by	1,200
	5,054.00

But since these rents are discounted at the beginning of the first year, multiply by	.7473
Present value of last five rents	3,776.85
Present value of first five rents	4,211.67
Present value of ten rents	7,988.52

Setting up an amortization schedule to prove:

SCHEDULE OF AMORTIZATION OF LEASEHOLD PREMIUM

End of year	Debit rent	Credit interest	Credit leasehold	Balance of premium
				7,988.52
1	1,000.00	479.31	520.69	7,467.83
2	1,000.00	448.07	551.93	6,915.90
3	1,000.00	414.95	585.05	6,330.85
4	1,000.00	379.85	620.15	5,710.70
5	1,000.00	342.64	657.36	5,053.34
6	1,200.00	303.20	896.80	4,156.54
7	1,200.00	249.39	950.61	3,205.93
8	1,200.00	192.36	1,007.64	2,198.29
9	1,200.00	131.90	1,068.10	1,130.19
10	1,200.00	67.81	1,132.19	
	11,000.00	3,009.48	7,990.52	

It is manifest at the end of the fifth year that there is a slight inaccuracy, the balance being $5,053.34 instead of $5,054.00, as calculated. This is owing to not carrying the calculation of V^5 beyond four decimals. The true value is a trifle more than .747258. But in these calculations a discrepancy of only $2.00 out of $11,000.00 in ten years is considered entirely satisfactory for all practical purposes.

NOTES IN A BALANCE-SHEET

Editor, Students' Department:

SIR: In the January number of THE JOURNAL OF ACCOUNTANCY you mention in answer to question 4 regarding valuation of inventory, that as far as financial standing is concerned cost valuation should be used showing the market value as a note. I am very much interested in this and would thank you to inform me as to the technical handling of such a note in the books and in the final balance-sheet.

Your courtesy in the above matter will be very much appreciated.

Yours very truly,

A. W. E.

New York.

The use of notes in a balance-sheet is open to the objection that they cannot be made a necessary part of the statement, because the table will balance whether they are included or not. Therefore, if the note calls attention to some fact that is considered detrimental by the officers of a

company, they can leave it out without impairing the accuracy of the effective figures. This is especially true if the note is a foot-note below the balance-sheet, and therefore not even included between the lines ruled above and below it.

The best way is to make it as far as possible an integral part of the balance-sheet by inserting it on the same line as the account to which it refers. Suppose two cases in an inventory that cost $100,000: first that at the date of the balance-sheet the goods were worth on the market only $90,000; and second that the market price had risen to $110,000. The balance-sheet might show:

1st inventory (cost $100,000) worth	$90,000
2nd inventory (now worth $110,000) cost	100,000

The officers would be justified in objecting to the first entry, but would of course be very glad to let the second one stand.

Only the amount of the inventory that appears in the regular column of the balance-sheet would appear in the books. The notes are merely explanatory and are not part of the accounts.

When Is a Profit Made?

Editor, Students' Department:

Sir: It is requested that you discuss the following problem:

Company "A" enters into a contract with company "B" whereby company "A" supplies to company "B" a certain piece of raw material and company "B" performs certain labor operations thereon for cost plus a stipulated profit of $10.00 per unit.

The terms of the contract are: company "B" is to store the finished units until sale is made by company "A" and as company "B" ships (to purchasers as directed by company "A") the cost plus the profit becomes payable. The question involved is, when does company "B" earn the profit? Would it be permissible on account of income tax to defer the profit until it is payable?

It is the writer's opinion that theoretically the profit is earned when the work is completely performed, but in the event of heavy manufacture and light sales toward the end of the fiscal year, there is danger that following that method large profits would be shown and hence a considerable income tax become due and payable for the year, but the funds to pay such tax might not become available for a considerable time.

The terms of the contract do not stipulate what method of settlement is to be made if company "B" accumulates a large stock of completed units, which company "A" does not sell, but it is assumed that company "B" will refuse to manufacture the units after a reasonable stock has been accumulated, until sales are made. A. B. B.

Youngstown, Ohio.

The answer to this letter depends upon an important condition that is not stated, namely, the time when B is to be paid for the work it has done, unless it is intended that B shall wait until sales are made before receiving any payment, which does not seem probable.

Company A sells the goods, although they are shipped by company B. Therefore it must be understood that company A collects from the customers and pays company B the amount due it for its work on the material.

Company B has nothing to do with selling the goods and should not be affected by any delay on the sales. It holds the goods in storage and ships them out purely as an accommodation to company A, probably to save cartage or freight. Therefore the situation as between the two companies is exactly the same as if company B returned the goods to company A upon completion of the work on them. Storing the goods subject to the orders of company A has the same effect as delivering them to company A.

It follows that, when company B notifies company A that certain units are finished and are held for orders, company B has the right to consider that it has earned the agreed $10.00 per unit, that it can charge company A in current account and that it can expect payment within a reasonable time. In that case company B has earned the profit on completion of its work.

However, if company B has been so short-sighted as to make a contract which provides that it is not to be paid until the goods are sold, it has not earned its profits until company A sells. In that case it should carry its share in the goods at whatever cost it has put into them until a sale is made, when it can charge company A at $10.00 and thus realize its profit.

Therefore it all depends upon the time at which company B can charge the account of company A and expect payment. No profit is made on any transaction until some one owes for the goods or the services.

If company A owes company B on completion of the work, as should be the case, the more work company B can do, the better, provided its storage capacity is not too limited. On the other hypothesis, company B must use its best judgment as to how many units it must furnish in order to be sure always to have enough on hand with which to make deliveries on the sales of company A.

Fire Loss

Editor, Students' Department:

Sir:—Will you advise me what entries to make properly to adjust the following fire loss on books:

Estimated loss on fixtures and building		3,500.00
Amount of insurance paid		2,800.00
Finished goods—estimated loss		8,500.00
Merchandise—estimated loss		625.00
Machinery department A		225.00
Machinery department B	2,000.00	
Furniture department B	325.00	2,325.00
Furniture department C		192.08
Office furniture		510.00
Estimated loss		12,377.08
Amount of insurance paid		9,000.00

Yours truly,

Philadelphia, Pennsylvania. F. D. M.

In case of a fire loss, the transactions must be put on the books in the order in which they occurred.

First record the fire.

Fire loss (in posting, detail the items)	15,877.08	
Fixtures and buildings		3,500.00
Finished goods		8,500.00
Merchandise		625.00
Machinery, department A		225.00
Machinery, department B		2,000.00
Furniture, department B		325.00
Furniture, department C		192.08
Office furniture		510.00
To record estimated loss by fire		
Cash	11,800.00	
Fire loss, insurance on buildings		2,800.00
Fire loss, insurance on contents		9,000.00
Payments by insurance companies		
Surplus	4,077.08	
Fire loss, loss on buildings		700.00
Fire loss, loss on contents		3,377.08
Net loss resulting from fire.		

Surplus is charged because the loss is an accidental and extraneous loss. Profit and loss would be charged only in case a fire were considered part of the normal operations of the business.

Correspondence

"Some Phases of Capital Stock"

Editor, The Journal of Accountancy:

SIR: A communication from A. R. M. Boyle, C. A., appearing in the July issue of THE JOURNAL OF ACCOUNTANCY attacks rather vigorously the writer's opinion (as expressed in *Some Phases of Capital Stock* printed in the May issue) that there is some question as to the propriety of writing off stock discounts. In the circumstances a brief reply is perhaps justified.

Mr. Boyle's first point is that there is no reason why the balance-sheet should show original proprietorship as distinct from accumulated profits since the balance-sheet purports to present the status of the enterprise at a given moment of time and does not attempt to show the history of the business; hence, there is no objection to cancelling stock discounts against undivided profits. This contention is not unreasonable but is perhaps stated a little too roundly by Mr. Boyle. The balance-sheet does not show the history of the business, but probably many accountants would agree that both the past and prospective situations should not be ignored in the preparation of this statement. Surely one reason for the use of valuation accounts to measure the decline in the value of fixed assets, with a consequent retention of cost figures and accumulated expirations for a time at least in the balance-sheet, is the desire to preserve original costs—and not depreciated present values—in the financial statements. Further, some accountants urge that definite contingencies should either be recorded directly in the balance-sheet or in an attached statement. This practice means that the prospective situation is brought into the balance-sheet. Still further, it would surely be admitted by anyone familiar with the taking of inventories and the work of actually preparing the statements that it is only ideally that the balance-sheet shows the momentary condition of a business. It is not considered good accounting, for example, to take into account current prices in valuing merchandise on hand provided the original cost is lower than the current cost.

Referring to an illustration appearing in the article, Mr. Boyle states that "no stockholder has any right to read that the original amount invested was $100,000 or that the total accumulated profits during the company's life are $20,000, but only that these figures represent the present capital and surplus in the business." Assuming this statement to be true it is submitted that what the stockholder has a right to do and what he does do are not the same thing. The typical stockholder undoubtedly attaches the significance of original investment to the par of the stocks outstanding; and he does not understand a technical matter like the cancellation of a discount.

Whether or not it is the function of the balance-sheet to show the amount of original proprietary investment it would perhaps be admitted

that this figure is a fact of some importance in any case, and that there is nothing vicious in a proposal to retain this item intact in the statements, if it can be done conveniently.

Mr. Boyle's second point is found in the statement that "if a stockholder wishes to learn what change has taken place in the surplus since the presentation of the last balance-sheet he should refer to the other statements furnished him and in a form that he can readily understand." The writer does not share Mr. Boyle's optimism with respect to the ability of the investor readily to understand the statements usually furnished him; and in any case it should be pointed out that the following statement appears in the writer's article: "It is true that an intelligent examination of income sheet and balance-sheet in conjunction by a person with some knowledge of accounting would serve to explain the disappearance of a stock discount item and a reduction in surplus of a like amount." Since this possibility was admitted in the article why does Mr. Boyle imply that the matter was overlooked?

Mr. Boyle then points out that there are many other ways of subdividing, appropriating, labeling and segregating surplus than its use to eliminate stock discounts. In the next paragraph he criticizes the writer severely for calling attention to the same fact. It should be admitted that in the statement referred to the writer had in mind the abuses which are sometimes practised in regard to surplus as well as the legitimate practices, but Mr. Boyle is quite right in stating that "surely Mr. Paton does not mean to say that the entire profits of a company are to be continually salted down in surplus account year after year and never used for any purpose." In view of this very evident fact, why set up a man of straw and flatten him with such enthusiasm? Further, although it is entirely proper for the directors to make appropriations from surplus, it is to be feared that Mr. Boyle attaches too much importance to the shifting of surplus from account to account (which is often all such appropriations mean.) Such phrases as the "utilization of profits" and the "setting aside of profits" are suggestive of definite action with respect to actual funds of assets and are, perhaps, a little unfortunate when applied to purely formal transpositions of surplus.

In conclusion, the point should be emphasized that the writer's article was intended more as a suggestion than as a statement of fundamental principle. At least it was not even implied that the obliteration of discounts was a peculiarly vicious accounting practice, as it was admitted in several places that the integrity of the total proprietorship figure was undisturbed by such a practice. In view of this fact why so much heat? Why does Mr. Boyle say that in the first paragraph of the article in question, "we are also advised that the accounting profession either does not understand certain matters or in its treatment of them wilfully ignores certain important aspects of them"? What the writer did say was that a study of the texts, articles and discussions of the subject "discloses the fact that either some of these matters are not fully understood or, at least, some of the generally accepted methods of accounting for certain sub-

sidiary phases of capital stock ignore important aspects of the situation." This is an impersonal, carefully qualified, temperate and true statement. Why does Mr. Boyle use the phrase "wilfully ignore", and why does he attempt to construe this modest statement into a deliberate attack upon the accounting profession? This last is the more ridiculous in view of the fact that the texts, articles and discussions referred to are largely supplied by academicians. The writer is frankly at a loss to understand Mr. Boyle's apparent anxiety to misunderstand the tone and content of the article in question.

Yours truly,

W. A. Paton.

Washington, D. C., July 17, 1919.

Oklahoma State Board of Accountancy

The governor of Oklahoma has re-appointed Tom D. Boydston secretary and treasurer of the state board of accountancy for a term of three years. The ex-officio members of the board are S. A. Freeling, attorney general, and Fred Parkinson, state examiner and inspector.

Maryland Association of Certified Public Accountants

At the annual meeting of the Maryland Association of Certified Public Accountants the following officers were elected for the ensuing year:

R. C. Reik, president; C. Wilmer Black, vice-president, and R. C. Morrow, secretary-treasurer.

Herbert J. Brooke & Co. announce that they have admitted George M. Doty to partnership. The name of the firm will be Herbert J. Brooke, Doty & Co., with offices in the Lumber Exchange building, Chicago.

H. W. Courter and Wm. C. Rhyne announce the formation of a partnership under the firm name of Courter & Rhyne with offices at 34 Pine street, New York.

Djorup & McArdle announce that Arthur B. McArdle has been admitted to the firm. The firm name will now be McArdle, Djorup & McArdle.

Scovell, Wellington & Co. announce the removal of their New York office to 27 William street.

Henry Varay announces that he is returning to practice at 20 Broad street, New York.

W. B. Lathrop announces the removal of his office to 327 South La Salle street, Chicago.

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Some Aspects of Flour Mill Accounting

By James L. Dohr, C.P.A.

During the last few years considerable improvement has been effected in the financial records of flour millers by reason of two facts: the control exercised over the milling industry by the United States food administration and the regulations of the bureau of internal revenue on income, excess profits and war profits taxes.

Control by the food administration was evidenced in three principal directions, namely (a) in an apportionment, on the basis of pre-war grind of the available wheat supply, (b) in regulation of price and (c) in the development of wheat flour substitutes. The conservation of wheat resulting from the apportionment was a notable achievement coming as it did in a time of shortage, and particularly inasmuch as the apportionment was effected in a most efficient and equitable manner. Hardly less far-reaching and beneficial in its results, however, was the improvement brought about in financial procedure and accounting by the regulation of price. From September 1 (or 10), 1917, to June 30, 1918, the industry operated under the following regulation (*Milling Division Circular* No. 1 b):

> No miller shall hereafter take any profits upon the business of milling flour and feed in excess of the following maximum, unless such maximum is terminated by action of the United States food administration after thirty days' notice; that is, a maximum average profit of twenty-five (25) cents per barrel on flour and fifty (50) cents per ton on feed; and in calculating such profits the cost of flour bulk at the mill shall be determined as the cost of clean wheat used multiplied by the actual amount of wheat used (which in no event shall be in excess of 285 lbs. of cleaned sixty pounds per bushel wheat to the barrel) less the amount secured from the sale of feed (excluding the profit derived from the sale of feed not to exceed fifty (50) cents per ton as above), plus the actual proved cost of production (which shall not include interest on investment) and marketing.

Under the above regulation monthly financial and statistical reports were required under oath, the forms for the report being supplied by the food administration and requiring, in effect, a uniform system of profit and loss accounts on the part of flour millers. The reports were based on the best available financial and statistical procedure taken from the better accounting systems in existence with a result that the average flour miller received a course of training in accounting, the benefits of which can scarcely be overestimated. Since June 30, 1918, representatives of the food administration have been auditing the accounts of all flour millers. Profits in excess of the prescribed amount must be paid over to the food administration grain corporation.

In so far as the regulations of the bureau of internal revenue are concerned, the flour industry has experienced the same changes as have occurred in our entire business organization. The government's entrance to a partnership with industry made necessary better accounting procedure than heretofore was practised, and, particularly since the passage of the 1916 and 1917 revenue acts, the question of correct accounting procedure has been one of vital importance to every business enterprise. The flour miller in common with other business men must be familiar with the internal revenue regulations and must keep his accounts in accordance therewith.

It is the purpose of this article to discuss some of the aspects of flour mill accounts as viewed by one who spent some time in auditing under the food administration rulings.

In order properly to appreciate the various phases of its accounts some knowledge of the practical workings of the flour milling industry is essential. The business has its peculiarities which may be briefly summarized as follows:

(a) The product is a necessity for which there is a constant and continuous demand. In order to insure a steady out-flow of flour through the distribution system, contracts of sale are made for future delivery.

(b) The raw material upon which the industry depends is produced in seasons involving periods during which no grain is available and regional shortage, in the event of complete or partial crop failures. In order to insure a steady in-flow of grain, contracts of purchase are made for future delivery.

(c) The raw material cost forms the principal part of the selling price, varying from 75 per cent. to 80 per cent. in the case of patent flour.

(d) In grain growing regions farmers find it convenient to bring grain to a mill and take away flour and offal or feed on their return journey. This feature has lead to the development of numerous small country mills which will probably continue to exist in spite of competition from the large and growing companies.

(e) The trading in futures involves speculation and, while the conservative miller avoids as much as possible any semblance of gambling, there are millers who combine the speculative feature with their milling business.

(f) The industry may be classed with the so-called by-product industries in which the production of one article (flour) is attended by the production of certain by-products (offal or feed).

For those who are not familiar with the workings of the industry the following summary is included:

The farmer brings his grain to the elevator where it is graded. The amount he receives for it depends (in the case of wheat, for example), first, on the kind of wheat, whether dark northern spring, northern spring, red spring, etc.; second, on the condition of the wheat which determines whether it shall be classed as number 1, 2, 3, 4 or 5 northern spring, for example; and, third; on the amount of dockage or foreign material in the wheat, since the price paid is so much per bushel of sixty pounds of gross weight less dockage.

In computing the bushel price to be paid the farmer, the elevator takes the current price at the nearest terminal market, say Minneapolis or Duluth, and deducts therefrom the freight charge from point of purchase to terminal market. In case the farmer does not want to part with his wheat at the current price, he can store it in the elevator at a certain storage and handling charge. The wheat in either case remains with the elevator until sold for milling. Country mills usually operate their own elevators, though as a whole the elevator business is distinct from that of milling.

At this early stage of the procedure complications arise. The grain business is a seasonal one, so the elevators will have more grain available than is required at one time, while later no grain will be available until another crop year. In our northwest, wheat begins to come in during September and continues until June, after which none is available for delivery. There are times, then, when the elevator must store grain. This involves a risk on the part of the elevator owner. In order to relieve him of the risk and to stabilize wheat prices throughout the year, there has arisen the practice of dealing in futures, the buying and selling of options. The elevator owner fills his elevator and sells an option —agrees to deliver at a future date. When he later contracts to sell his wheat or having shipped it out on consignment is rendered an account sales, he buys an option to offset the one sold at the outset. In this buying and selling of options the miller plays the reciprocal part. Looking to future requirements he buys an option when the wheat is stored in the elevator. When later he contracts for grain he sells an offsetting option. Unfortunately, at the same time the speculator has had his hand in the game—his gains increasing flour costs; his losses reducing them.

The grain moves from the elevators to the mills in accordance with the miller's purchases, which are a very important part of his activities. Bearing in mind that the grain business is a seasonal one with constantly fluctuating prices determined (in normal times) by a world market, and that the dealing in futures involves a careful study of market conditions, his problem becomes apparent. He must keep an evenly regulated flow of grain to his mill, in keeping with his storage and milling capacity, with due allowance for the period between crop years when no grain is available. His purchases must be of the proper grades and kinds, since it is of the utmost importance in the flour business to maintain a constant "mixture"—that is, mixing of such grades and kinds of grain as produce each miller's particular brand of patent flour. He must correlate his purchases with his advance sales. So important is the problem that each day a statement is made up, usually known as the long and short statement, which shows the amount of flour sold in advance and the amount of wheat on hand or purchased on contract or option

to manufacture the flour. Conservative millers buy sufficient wheat to manufacture every pound of flour sold in advance immediately after the sales are made.

On arrival at the mill, the wheat is stored in the mill elevator until required for milling. The first process in milling is a rough separation, in which foreign material such as oats, barley, etc., is taken out and sold as screenings. The wheat then passes a scouring machine, which cleans it thoroughly and passes it on to the tempering bins, where it is soaked in water for a number of hours. It is then ready for grinding machines known as breaks. These grinding machines consist of steel corrugated rollers revolving in opposite directions, which grind the kernels of wheat to various degrees of fineness. The usual type of mill has five breaks and between breaks the flour goes to various types of separating machines, known as purifiers, which extract the various grades of offal, returning the separated feed and flour for further breaks. In general it may be said that about 4½ bushels of wheat are required for a 196-pound barrel of flour, running, say, 85% high grade, 10% first clear (a lower grade) and 5% second clear (low grade), while a by-product of 74 lbs. of offal is divided between various grades of feed known as red dog, middlings, bran and shorts.

The flour after leaving the breaking machines passes on to sifters and reels, where a further grading and separating occurs by the use of silk bolting cloths. In many mills some type of maturing system is used to mature flour prior to sacking, which constitutes the last process of milling. Various sizes and kinds of sacks are used, ranging from 6 lbs. up to 140 lbs.

In shipping flour an interesting development is met with, known as the milling-in-transit privilege, extended to millers by the railroads. Under this privilege the miller purchases wheat for shipment to his mill, paying the local freight rate from point of purchase to the mill. The flour when milled is shipped at the through rate from point of purchase to selling point, credit being extended by the carrier against the freight computed at the through rate for the amount already paid at the local rate less a small penalty for using the privilege. The result of the privilege may be a saving of 15 to 25 cents on a barrel of flour and is very important to the country miller.

Sales are made either by traveling salesmen or through brokers on a commission basis. Practically all millers sell for future delivery and are apt to consider a profit made as soon as a sale for future delivery is booked. Generally sales are made on a wholesale basis, though some millers conduct a jobbing department for local retail sales. Advertising is an important feature—the larger companies spending large sums every year in developing their business through outdoor and magazine display.

II

In exhibit A, which follows hereunder, will be found a schedule of accounts such as might be used by a medium sized flour mill grinding wheat only (no coarse grains), having its own elevator and selling at wholesale exclusively. Larger or smaller mills would require greater or less detail in the various groups of accounts. In so far as they are similar to those used in other businesses the accounts require no explanation. The unusual items and the manner in which they are used may be outlined as follows:

Milling-in-transit. This account will be charged with the excess of the local rate paid in shipping grain to the mill over the proportionate part of the through rate (from shipping point of grain to destination of flour) paid in shipping flour applicable to the distance over which the grain was shipped. Suppose grain at point A is shipped to a mill at point B from which flour is later shipped to point C, these points lying along a railroad in the order named. The local rate A to B is 11c. per hundred; the through rate A to C is 33c. per hundred; the through rate B to C is 28c. per hundred. When the grain is shipped from A to B the 11c. rate is paid; and 5c. (the difference between 33c. and 28c.) should be charged to infreight on wheat—the remaining 6c. to milling-in-transit. When the flour is shipped from B to C the through rate from A to C of 33c. is paid minus the 11c. rate already paid or 22c. (plus a penalty of 2c. in some cases), and this amount is charged to freight outward. At the same time a journal entry will be made transferring the 6c. previously charged to milling-in-transit to the freight outward account. The balance in the milling-in-transit at any time represents a deferred charge to the

freight outward account—except that adjustment will be necessary from time to time for inaccuracies in the amounts charged and credited.

Contracts for future delivery. Various methods are used by flour millers by which entry is made on the books of account for advance sales. In many cases the profit on such sales is thrown into the profit and loss account when the sale is made. This procedure is, of course, indefensible, inasmuch as no profit should be taken until shipment is made, even though the sale be on written contract, the necessary wheat purchased and number of contracts so great that an occasional cancellation would only affect the profits to a slight degree. It is difficult, however, to convince a flour miller that only a memorandum record is required for these contracts. An account is provided therefor which may be charged with the selling price on advance sales. A special liability account is also provided to carry the amount on advance sales until delivery is made, when the amount can be cleared to sales. In stating the balance-sheet at any particular time, both these accounts should be written in short.

Claims. Numerous claims are made against carriers for shortages and damage in transit. Pending final action on such claims by the carriers they should be carried as a contingent asset.

Reserve for sacks. During the war prices on sacks increased by leaps and bounds, reaching a peak in May and June, 1918. Sacks on hand, June 30, 1918, were priced at cost or market, whichever was lower. It became evident that soon after June 30, 1918, sack prices were rapidly declining and that costs would be inflated if the inventory prices were used on sacks filled, as compared with costs where current purchase prices on sacks were used. Millers were permitted then to include a charge against profits earned prior to June 30, 1918, based on the excess of June 30, 1918, sack inventory prices over sack prices obtaining September 1, 1917, when control was inaugurated. The reserve so built up is regarded here as appropriated surplus rather than as a deduction from the sack inventory account.

Reserve for reduced output and inactivity. During the control period (September 1, 1917, to June 30, 1918) the available wheat supply was allotted to the various millers on the basis of their

average pre-war grind—the amount supplied being about 90% of such grind. It was not possible, of course, to give every miller exactly 90%—some receiving more, others less. To equalize these differences a reserve charge was allowed in the income account of the control period based on the number of barrels of flour which could have been produced had the miller received his full allotment. In computing the allowance profit (at 25c. per barrel) an additional 25c. per barrel was allowed for under-receipt of allotment. In the classification of accounts this reserve represents appropriated surplus. It merely prevents the payment of dividends during the season of all profits earned without allowance for the loss to be sustained at the close of the season due to inactivity.

Gains on options. In order to insure an adequate supply of wheat the miller purchases options, charging them to an option account. As the price of futures fluctuates, periodical settlements are made, in which the miller receives his profits if the price advances and pays his loss if the price declines. The amounts so paid or received are carried to appropriate profit or loss accounts. When the option is sold the option account will be balanced.

Income and excess profits taxes. Federal taxes are regarded here as dispositions of profits, though the flour miller often prefers to regard them as expenses of doing business. It should be noted that the food administration in computing allowable profits did not include income and excess profits taxes as business expenses, holding that they must be paid from the 25c. per barrel profit.

Elevator operations. When a flour miller operates his own wheat elevator it becomes necessary to segregate the items pertaining to elevator operations. Frequently the miller will arrange his accounts so that wheat is turned over to the mill at a profit to the elevator. This is not a sound procedure, since a profit is realized only where a sale is made to an outsider. The classification of accounts submitted here merely segregates elevator operations. In comparing the accounts and particularly the costs of a miller who operates his own elevator with one who does not, due allowance will be made for the integration.

Laboratory expense. Many millers maintain laboratories for testing wheat, experimenting in mixing wheat for flour and studying the baking qualities of their particular brands. This expense is uniformly included as a milling expense.

Bad debts. These are treated in the food administration's classification as a selling expense.

Jobbing accounts. Where millers act as jobbers as well as millers, a separate series of selling accounts will be provided in order to segregate these operations and show unit costs thereon. The food administration allowed millers to take a paper profit (in addition to the 25c.) in turning flour over from their milling to their jobbing departments; but such procedure is not in accord with good accounting principles.

III

Several methods are used by flour millers in computing their costs for various purposes including the determination of selling price, the pricing of inventories and the computing of profit and loss. The best of these is the so-called by-product method, based on the theory that the miller is engaged primarily in the production of patent flour and that low grade flours and offal are by-products. The procedure followed is one whereby all costs are charged against the high grade flour and the concomitant production of by-products is credited to cost of high grade flour at selling price. Exhibit B below shows the workings of the method in a typical case.

The bases of the computation are the statistical data on production which in this supposititious case indicate that 4.4 bushels (264 lbs.) of cleaned wheat are required to produce one barrel (196 lbs.) of flour; that flour production runs 75% patent or high grade, and 25% low grade (divided into 15% first clear and 10% second clear); that with one barrel of flour there was produced 68 lbs. of offal; that the offal was divided into 14.7 lbs. of flour middlings, 13.5 lbs. of standard middlings, 35.5 lbs. of bran and 4.3 lbs. screenings. (See 1-a, 1-b and 1-c on exhibit B.)

Assuming that wheat costs $2.20 per bushel (being the weighted average price of the grades used) the total wheat cost in producing one barrel of flour is $9.68, to which is added the milling cost (as shown by the production records) of 60c, making a total cost of $10.28. Against this cost (which is now assumed to be the cost of .75 of a barrel of patent flour) is credited the selling price of the by-products—low grade flour and feed—totaling (see exhibit B 2-d) $3.13, leaving a net cost

of $7.15 for .75 of a barrel of patent flour or $9.53 for one barrel. A comparison of this figure with the selling price (bulk f.o.b. mill, since sacks, selling and administrative costs and freight are ignored in computing cost) indicates the profit per barrel of high grade flour produced.

This method can be used in computing costs for any purpose, though the statistical and selling price bases will have to be determined in accordance with the purpose of the computation. In the fixing of selling prices from day to day, the statistics on yield should be those which will obtain when the flour will be produced, and the prices on by-products those which will obtain when the flour is sold. This may sound paradoxical, but it can be worked out as follows: production yield at various times during a season bears a close relationship to the yield at the same time in previous seasons when similar grades and kinds of wheat are ground from season to season. By scrutinizing current yields together with those of similar periods in past seasons a basis will be found for estimating the future yield. Great care must be exercised since sales are made in a highly competitive market and on a very close margin. A small error may wipe out the entire profit. The selling price of the by-products will be the current selling price if future sales of a proportionate quantity can be made at once; if not, allowance will have to be made for the trend in prices up to the time when sales of the by-products can be effected. The price of wheat in the computation will be the current one on future delivery and an option should be purchased immediately to cover the sale.

In pricing inventories under the rule of cost or cost or market, whichever is lower, the cost of patent flour can be determined as outlined. The statistical basis here will be the actual yield at the time when the patent flour was produced and the selling prices will be those obtaining when the proportionate by-product production was marketed. The inventory of by-products will be priced at market as of the inventory date.

In determining milling cost per unit of production the method will also be used as above. The statistical basis will be the actual production during the cost period and the selling prices of by-products will be those actually received during that period. In addition to the milling costs, unit cost of sacking, selling and administration can be computed on the basis of barrels produced.

If elevator and jobbing costs are segregated, unit costs for these functions can be similarly determined. These unit costs are used as a guide in passing on the efficiency of the producing organization and form a basis for comparison of different cost periods.

IV

In the accounts of a flour mill statistical records of purchases, production and sales are of great importance, particularly the records concerning the purchasing of wheat and selling of flour, the daily consumption of wheat and the daily production of flour and by-products.

A close relationship must be maintained between sales of flour, on the one hand, and purchases of wheat from which the flour is made, on the other. The sales indicate the amount of wheat which will be required. Conservative milling practice demands that purchases be made "to cover" as soon as the sale is consummated. If this is not done, sales may be made on a certain basis from which the profit may be eliminated by subsequent increase in wheat prices. The relationship of purchases and sales is shown daily by a long and short statement on which sales are translated to a bushel basis and made comparable with purchases.

The sales side of the statement is made up from reports of sales and shows the number of barrels sold as follows:

	Barrels	*Wheat equivalent*
(a) Required for current orders..........	* * *	* * *
(b) Required for future delivery..........	* * *	* * *
Total sales booked	* * *	* * *

Against this total will be shown the available wheat and flour manufactured as follows:—

	Barrels	*Wheat equivalent*
(c) Flour in stock (from stock reports)...	* * *	* * *
(d) Wheat in elevator (from stock reports)		* * *
(e) Wheat in transit (from shipping notices)		* * *
(f) Wheat contracts (from purchase reports)		* * *
(g) Wheat options (from purchase reports)		* * *
Total wheat available		* * *
(e) Excess of wheat over requirements		

In examining this statement the mill manager will make notations for directing purchase and sale. The purchasing department will be instructed to purchase at once or for future delivery in accordance with sales made, as shown by items (a) and (b), and in accordance with elevator capacity and incoming wheat, as shown by items (d) and (e). Further analysis will be made as to the grades of wheat in order that the mixture required for the miller's patent flour may be maintained. Instructions will be issued covering the sale of by-products, since the production of patent flour necessarily involves a proportionate production of by-products (low grade flour and feed) which must be sold. The general consideration of the statement involves at the same time a detailed study of market prices and tendencies in wheat, flour and by-products, as well as crop conditions, imports and exports, alternative production of coarse grains, etc. A type of long and short statement in use is presented in exhibit C.

Important as an instrument of administrative guidance is the record of daily consumption and output. From mill reports made up at the close of each day there will be compiled a statement showing—

1. Wheat used:
    a. Gross wheat—bushels.
    b. Mill screenings—bushels.
    c. Net wheat—bushels.
2. Flour produced:
    a. Patent or high grade—pounds and per cent. of total flour.
    b. First clear—pounds and per cent. of total flour.
    c. Second clear—pounds and per cent. of total flour.
3. Offal produced:
    a. Standard middlings—pounds and per cent. of total offal.
    b. Flour middlings—pounds and per cent. of total offal.
    c. Bran—pounds and per cent. of total offal.
    d. Screenings—pounds and per cent. of total offal.
    e. Over-run or under-run.

This statement is kept on a monthly basis, one sheet a month, with one line for each day. At the end of each month totals and monthly averages are computed.

Generally it will be found that the wheat (in pounds) is not entirely realized in flour or offal, the difference being called under-run (invisible loss). In some cases, however, the tempering process will so increase the moisture of the wheat as to result in a gain in pounds of production or an over-run (invisible gain).

From the daily output and consumption record will be computed the statistics of yield and percentages for cost purposes.

Further records will be kept of sacks purchased, on hand and used (by sizes and kinds); drafts drawn and paid; wheat received, shipped and used; flour produced, stored and shipped; flour sold and unit selling costs by salesmen; customers' accounts showing barrels of flour as well as dollars; other ledger accounts showing bushels and pounds as well as dollars—these in addition to the usual records and accounts found in any commercial enterprise.

The present complicated organization of the milling industry with its purchasing, milling and selling divisions reflects our progress in civilization when compared with the old system where every farmer made his own flour by grinding wheat between two stones; and like our progress in civilization, the change has been a gradual one requiring a long period of time. It is only recently, however, that the question of accounts and records has assumed serious proportions. The flour miller, in common with other business men, has only in the last few years learned the value of good accounts. At the present time the miller has no choice; a good system of records has become absolutely essential, and there can be little question as to the future. Beset on all sides with rising costs, increased burdens of taxation and keener competition, the miller must learn to depend more and more upon his accounts. His accountant must be called upon frequently for advice and information. The result will be reflected in better business and better accounts.

Exhibit A

Schedule of accounts.

Adapted to a medium sized flour mill having its own elevator, grinding wheat only and selling at wholesale exclusively.

1. Assets.
    - 11 Current assets.
        - 111 Cash.
        - 112 Accounts receivable.
            - 1121 Customers' ledger.
            - 1122 Reserve for bad and doubtful accounts.
        - 113 Notes receivable.
        - 114 Inventories.
            - 1141 Flour.
            - 1142 Offal.
            - 1143 Other products.
            - 1144 Wheat.
            - 1145 Flour packages.
            - 1146 Offal packages.
            - 1147 Mill supplies.
        - 115 Temporary investments.
        - 116 Options.
        - 117 Other.
    - 12 Deferred assets.
        - 121 Insurance prepaid.
        - 122 Discount.
        - 123 Expenses prepaid.
        - 124 Milling-in-transit.
    - 13 Fixed assets.
        - 131 Land.
        - 132 Elevator.
            - 1321 Buildings and equipment.
            - 1322 Reserve for depreciation.
        - 133 Mill.
            - 1331 Mill buildings.
            - 1332 Reserve for depreciation.
            - 1333 Mill equipment.
            - 1334 Reserve for depreciation.

- 134 Office.
  - 1341 Building and equipment.
  - 1342 Reserve for depreciation.
- 135 Storage and delivery.
  - 1351 Building and equipment.
  - 1352 Reserve for depreciation.
- 136 Permanent investments.
- 137 Other.

14 Special assets.
- 141 Contracts for future delivery—flour.
- 142 Contracts for future delivery—offal.

15 Contingent assets.
- 151 Claims.

2 Liabilities.

21 Current liabilities.
- 211 Accounts payable.
- 212 Bills payable.
- 213 Accrued liabilities.
  - 2131 Taxes.
  - 2132 Interest.
  - 2133 Wages.
  - 2134 Other.

22 Fixed.
- 221 Mortgage payable.
- 222 Bonds.

23 Contingent.
- 231 Notes receivable discounted.
- 232 Claims.

24 Special.
- 241 Contracts for future delivery.

3. Proprietorship.

31 Capital stock.

32 Unappropriated surplus.

33 Appropriated surplus.
- 331 Reserve for contingencies.
- 332 Reserve for sinking funds.
- 333 Reserve for sacks.
- 334 Reserve for reduced output and inactivity.

34 Profit and loss—current year.
- 341 Dividends.
- 342 Income and excess profits taxes.
- 342 Appropriations of net profits.
  - 3431 Contingencies.
  - 3432 Sinking fund instalment.
  - 3433 Sack price fluctuations
  - 3434 Reduced output and inactivity charge.

4. Revenues.
- 41 Sales.
  - 411 Flour.
  - 412 Returns and allowances on flour sales.
  - 413 Offal.
  - 414 Returns and allowances on offal sales.
  - 415 Other.
  - 416 Freight outward.
- 42 Gains on options.
- 43 Other income.
  - 431 Interest.

5. Expenses.
- 51 Cost of sales.
  - 511 Elevator.
    - 5111 Wheat purchases.
    - 5112 Handling.
    - 5113 Freight and insurance.
    - 5114 Repairs.
    - 5115 Depreciation.
    - 5116 Other elevator expense.
  - 512 Milling.
    - 5121 Mill labor.
    - 5122 Heat, light and power.
    - 5123 Mill supplies.
    - 5124 Repairs.
    - 5125 Depreciation.
    - 5126 Insurance.
    - 5127 Taxes.
    - 5128 Other.
    - 5129 Laboratory expenses.

513 Packages.
5131 Flour.
5132 Offal.

52 Selling.
521 Salesmen's salaries.
522 Traveling expenses.
523 Commissions.
524 Advertising.
525 Bad debts.
526 Others.

53 Warehouse and delivery.
531 Salaries.
532 Other expenses.
533 Depreciation.

54 Administration.
541 Office salaries.
542 Office expenses.
543 Depreciation.

55 Interest and exchange.

56 Loss on options.

Exhibit B

Schedule showing determination of flour cost by by-product method

1. Statistical basis:

(a) 4.4 bushels (264 lbs.) of wheat per 196 lbs. of flour and 68 lbs. of offal.

(b) 196 lbs. of flour divided as follows:

75% patent.
15% 1st clear.
10% 2nd clear.

(c) 68 lbs. of feed divided as follows:

14.7 lbs. flour middlings.
13.5 " standard middlings.
35.5 " bran.
4.3 " screenings.

2. Computation of cost of patent flour.

(a) Wheat cost 4.4 bushels @ $2.20		$ 9.680
(b) Add milling cost 60c per barrel		.600
(c) Total cost per barrel of flour		$10.280
(d) Credit for 1st and 2nd clear and offal at selling prices.		
.15 bbl. 1st clear @ $9.80 per bbl.	1.470	
.10 bbl. 2nd clear @ $7.50 per bbl.	.750	
14.7 lbs. flour middlings @ $39.00 per ton	.286	
13.5 lbs. standard middlings @ $27.00 per ton	.182	
35.5 lbs. bran @ $22.50 per ton	.399	
4.3 lbs. screenings @ $20.00 per ton	.043	
Total credit for by-products		3.130
(e) Cost of .75 barrel of patent		$ 7.150
(f) Cost of one barrel of patent		$ 9.530

3. Determination of profit on advance sales.

(a) Selling price (bulk f.o.b. mill)	$10.50
(b) Cost as determined above	9.53
(c) Profit per barrel	$ .97

Exhibit C

____________________19___

THE CENTURY MILLS

SPRING WHEAT						
Wheat futures bought						
Wheat bought to arrive						
Wheat in transit						
Wheat in elevator						
Flour on hand	Bbls.					
Warehouse stocks	Bbls.					
Wheat futures sold						
Flour sold	Bbls.					
Long						
Short						
DURUM WHEAT						
Wheat futures bought						
Wheat bought to arrive						
Wheat in transit						
Wheat in elevator						
Flour on hand	Bbls.					
Warehouse stocks	Bbls.					
Wheat futures sold						
Flour sold	Bbls.					
Long						
Short						
Net long						
Net short						

Accounting for Cost of Naval Vessels under Cost-Plus-Profit Contracts*

By Francis P. Farquhar

Early in 1917, when it became apparent that the United States would enter the world war, the navy department foresaw that a rapid expansion and increase in speed would be required in its construction programme. There were at that time numbers of contracts for destroyers, battleships and battle cruisers let on the usual fixed price basis, but upon which work had not been begun. The problem before the navy department and the shipbuilders was how to carry out these contracts under conditions that would inevitably result in greatly increased cost. Moreover, the new conditions called for a large addition to the construction programme which meant filling up all the available shipyards with work to capacity. This precluded any possibility of using the customary method of submitting plans for competitive bids.

Conferences between the navy department and the shipbuilders resulted in the adoption of the cost-plus-profit plan of payment. There were no precedents for contracts of this character on anything like the magnitude of the scale required. The nearest analogies that existed were certain manufacturing contracts based on actual cost plus a percentage for profit. Time was limited and necessity was urgent, so this form was adopted as the best available.

The definition of cost was only briefly considered in the contracts. It was fairly obvious as far as direct labor and materials were concerned, but the accounting for overhead, as usual, presented difficulties. Some of the shipbuilders proposed a fixed percentage of the labor and materials costs as the basis for overhead; others a fixed percentage of the direct labor cost; while others suggested actual overhead as shown by the books.

The first two plans were abandoned as being too indefinite and also because the normal percentages of overhead varied widely in the different shipyards. The contracts were finally drawn up on the basis of actual cost of labor, material and overhead. The

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percentage for profit was agreed upon in every case as 10% of the total cost, excluding from this cost any sums that might be paid by the navy department for increased plant facilities. A number of these cost-plus-10% contracts were signed by the navy department and the various shipbuilders during the spring and early summer of 1917.

As work proceeded, it became increasingly apparent that the cost-plus-percentage basis had certain defects which rendered these contracts not the most desirable type. It was impracticable to change the existing contracts, but when it became necessary later in the summer to place a large number of additional orders for destroyers, a new type of contract was evolved, which, while adhering to the principle of actual cost, did away with the percentage basis for profit by substituting a fixed profit with a bonus for saving in cost below an estimated figure.

Almost all the naval construction undertaken during the period of the war was on the basis of these two types of contracts. There were a few exceptions in special cases, but these were relatively unimportant. It should be borne in mind that these contracts were prepared under most difficult conditions and were the result rather of urgent necessity than of desirable policy. In looking back in the light of subsequent knowledge, it is very easy to find ways in which they could have been improved. It is not the purpose of this article, however, to criticize these contracts or to point out their defects, but rather, accepting them as they stand, to describe some of the problems involved in administering the accounting and inspection required for the determination of actual cost and the approval of bills.

Conditions of Cost Inspection

Approximately the same problems of determining actual cost were involved in each type, the differences being in the basis of profit and in the manner of providing for additional plant facilities. In most cases work on these two types of contracts was carried on simultaneously in the same yard under practically identical conditions. Of course, in the early part of the period the work was largely on the cost-plus-10% basis, while latterly it became greater on the cost-plus-fixed-profit basis. This involved certain special problems in the control of the costs, but did not affect the principles of determining them.

To describe fully the conditions under which these contracts were operated or even to enumerate all the problems arising from them would be far beyond the scope of a brief article, but in order that some idea of their nature and extent may be perceived a brief summary of typical conditions is presented.

When the war began in the spring of 1917 there were under construction in certain of the shipyards specializing in navy work several vessels for private owners as well as several naval vessels on the original fixed price contracts. In some plants a certain portion of the facilities was also devoted to ship repair work. To this was now added the work under cost-plus-percentage contracts, which increased rapidly in proportionate volume as time went on.

The first problem that arose was to see that work performed on the fixed price contracts was not charged to the navy cost-plus contracts. The solution of this problem soon became contingent upon the solution of many other problems of detail.

The question of what should be classed as direct labor and what as indirect arose almost immediately. It would obviously be unfair to charge foremen's time on fixed-price contracts to indirect expense while charging it on cost-plus contracts directly to the contracts. It should either be charged in both cases to indirect or in both cases to direct expense. The latter would, of course, be satisfactory only in case the correct charge were ascertainable. It was soon apparent, however, that in many cases such expenses could not be properly allocated directly to specific jobs, and it became necessary to consider all the doubtful cases as indirect expense and to draw up rigid directions for excluding such expenses from direct costs.

Another problem occurred in the charging of material. This was a question of organization rather than of principle. With a rapidly increasing volume of work, it was very difficult to be sure that material purchased and charged to a particular vessel was actually used on such a vessel. The stores and material accounting facilities for most shipbuilders prior to this time were adequate perhaps for their own purposes, but with enormous increase in volume of material handled a state of confusion not unnaturally resulted, from which it took many months of painstaking effort to restore order and accurate accounting.

As time went on the fixed price contracts became completed and most of the work in the yards was on the navy cost-plus contracts, with a small amount of repair work and in some instances a few contracts for the Emergency Fleet Corporation. The last were also usually on cost-plus contracts differing slightly in form from those of the navy. This condition made it still more important to provide for a correct segregation of costs between the various contracts. It was obviously to the interests of the shipbuilder that the cost-plus-percentage contracts should bear their full costs without any diminution, and, as a matter of fact, a dishonest shipbuilder might have been tempted to throw costs properly belonging to other contracts on these cost-plus-percentage contracts. While it is not desired to express the slightest intimation that any shipbuilder wilfully diverted his costs in such a way, it must, nevertheless, be apparent that there was a wide opportunity for errors to creep in at the expense of the government. The proper segregation of charges between the contracts became, therefore, one of the fundamental points in which the government was interested.

As an illustration of the difficulty of carrying out this segregation, even with the best intentions on the part of all concerned. one need only to examine the processes entering into the building of a vessel. One not familiar with a shipyard might suppose that a vessel was a unit large enough to be kept entirely segregated from any other work. A great deal of the work on a vessel, however, is done before the material actually reaches the building slips. All the enormous fabricating and subsidiary shops, such as the machine shop, the boiler shop, the sheet metal shop, the pattern shop, the foundry, the galvanizing plant and others, contribute to the shipbuilding process; and, with these shops crowded to the utmost limits of their capacity, it is often no easy matter to keep track of the material destined for individual vessels. Add to this the fact that drillers and rivet gangs are repeatedly taken from one hull and sent to another perhaps only a few yards away, and it will be seen that constant watchfulness is required on the part of the time-keepers, shop clerks and inspectors to see that the proper charges are made on the cost records.

Another condition that tended to create uncertainties in the costs was the constantly increasing dilution of the shipbuilder's

force with inexperienced men. At times an enormous number of labor job tickets would come through with erroneous charges, which investigation proved were due simply to the ignorance of the men or their unfamiliarity with conditions. It sometimes happened that the job numbers written on the time cards would prove to be those used by the workman at another shipyard where he had recently been working. In other cases purely fictitious numbers would appear, and no amount of training and exhortation seemed to produce satisfactory results during the period of rapid expansion.

This condition could have been corrected much more rapidly if the shipbuilder's time-keeping and accounting forces had been able to expand with the requisite efficiency. But here the serious difficulty was encountered of getting competent help at a time when large numbers were responding to the call of the army and navy. Nor was it easy to obtain new men at anything less than prohibitive rates. It would often occur that a man engaged as a time-keeper would, in two or three weeks after becoming familiar with the work in the plant, discover that he could make double his wages by becoming a rivet holder. This meant another man added to the ranks of productive labor, but at the same time more trouble for the accounting department. The result of these circumstances was that for a considerable period large percentages of erroneous charges came through to the cost books and were rectified there only by the most strenuous efforts on the part of the veterans of the accounting system, aided by the close coöperation of the government inspectors.

These are only a few of the conditions that existed throughout a considerable period of war-time work on cost-plus contracts. The work of the shipbuilder's accounting forces and of the navy department's cost inspection force cannot properly be judged without making allowance for such extraordinary difficulties.

Methods of Cost Inspection

The methods of cost inspection could not be determined fully in advance, but developed with the increasing volume of the work and the recognition of the complexity of the problems involved. Even a brief summary of the rules and procedure laid down for the navy cost inspection boards would require considerably more space than is here available. Varying conditions

had to be met and ever changing problems encountered. The work of determining costs naturally fell, however, into the main divisions of (a) materials, (b) labor, (c) indirect expenses, (d) additional plant facilities. In determining these costs, the work of the technical inspectors of the navy, namely, the superintending constructor, the inspector of machinery and the civil engineer, formed an important part, but one which was not primarily concerned with accounting. The description here may, therefore, be limited to the work of the cost inspector's office, which was primarily the accounting office for the government.

Accounting for Materials

The cost inspection of materials begins with the approval of the purchase order. Every purchase order issued by the shipbuilder requires the approval of the navy technical inspector who is concerned with that particular material. This approval takes into consideration the price, the terms of delivery, the quality and the necessity for the article. The technical inspector naturally looks to the cost inspector for recommendation as to the reasonableness of prices. Accordingly, on every purchase order the cost inspector checks the prices by such data as he may have at hand or be able to obtain from outside sources. It is, therefore, necessary for him to keep a complete record of prices obtained from previous invoices, from navy yard records, published price lists and trade journals.

The next step after approval of the purchase order is for the cost inspector to file the order in such a way that when the invoice is presented it can be quickly checked against the order, for the purpose of determining that the invoice price is correct and that the total quantities invoiced do not exceed the quantities authorized on the purchase order. No invoices are passed by the cost inspector for payment unless they are checked against a properly authorized purchase order.

The procedure outlined refers to the purchase of materials ordered directly for use in constructing the vessels. It is often impossible, however, to determine the ultimate destination of material that is required for the various fabricating processes in the plant, although it may be known that all of this material will be required for the navy contracts. In such cases, the same

procedure is followed, but in addition an inventory is required showing the disposition of material as it is expended and the quantity remaining on hand.

A great deal of material is also required for purposes connected with indirect expense. This is purchased by the shipbuilder for his own account and is drawn from his stores by requisition. As the values involved are often considerable it is incumbent upon the cost inspector to check the prices of this material and see that they are issued against the shop expense orders at actual cost prices, which, in this case, are taken as the average prices paid for the respective classes of material. A constant test is, therefore, required of the store-keeper's price records, which involves repeated checking of the general stores inventory.

Inasmuch as the shipbuilder is accountable for all of the material purchased, it is necessary for the cost inspector to keep bills of material continually posted up to date in order to ascertain that no excess amounts of material are ordered. If it were not for these bills of material, it would be possible for serious errors to occur that could not easily be detected. Materials ordered for certain specific jobs might be diverted in part by the shop foreman to fill up emergency orders upon which material was short. If, through some error, the credit did not reach the navy account it would result that the navy would be charged with material not received. When the time came for using such material on the navy vessels it would be missing and a new order would be made by the shipbuilder which would result in a duplicate charge to the navy account. By keeping track of every order issued on a bill of material, however, the new order would show as an excess quantity and an explanation would be required. It should not be inferred from this that any deliberate attempt at duplicating orders or diversion of materials is the practice of the shipbuilders, but, when the enormous volume of work in some of the large shipyards is considered, it will be seen that errors of this sort might very easily occur in spite of the best of intentions.

Accounting for Labor Charges

Perhaps the most difficult part of cost inspection is the checking of the labor charges. This, at first, might seem to be the easiest, and under normal conditions it might well be easy. But under the abnormal conditions prevalent during the war period,

only the most thoroughly organized and painstaking efforts on the part of the cost inspectors have sufficed to reduce to a minimum the errors in this branch of the accounting. Some of the difficulties have already been recounted, but perhaps the most perplexing condition of all is in the piece-work counting. During the early part of the period few shipyards had an established piece-work schedule, and in almost all the yards such schedules as did exist were subject to continual changes. This made it difficult for the inspectors to find anything definite with which to check. Until the inspectors themselves became thoroughly familiar with the conditions of work it was often impossible for them to determine whether the rates placed by the foremen on the piece-work slips were reasonable or not. With the tremendous expansion of work it was only natural that the piece-work rate-setters should make mistakes and not infrequently these mistakes produced large discrepancies, not always to the disadvantage of the government. It should be mentioned that as time went on this condition showed considerable improvement.

Without casting any reflections upon the integrity of the large body of workmen and the piece-work counters in general, it must be admitted that a considerable amount of wrong counting took place in almost every yard. Piece-work counting at best requires the utmost vigilance and care even when all parties are disposed to be rigidly honest. The least carelessness will often result in a large error in the count. In rivet counting, for instance, it is very easy to miss a number of rivets in the count. The riveter knows this and it is only human nature that he should try to offset it by counting in all the rivets he can claim as his own. With inexperienced counters this not infrequently results in duplicate counts. Proper organization and training of the counters can overcome this to a great extent, but proper organization and training were not to be had during certain stages of the work. A green counter is also likely to make this mistake: he will turn in a count as for ⅞ inch rivets, when as a matter of fact the size actually driven was ⅝ in. With rates at $5.50 per hundred for ⅞ inch, and $4.50 per hundred for ⅝ inch, it will be readily seen that an error of this sort makes considerable difference.

Illustrations of errors due solely to inexperience or carelessness that can creep into the accounts through the labor records

could be multiplied without end. Not all the sources of these errors were discoverable from the start, but it can be said that through the constant watchfulness and alert minds of some inspectors who came in direct contact with the work a large percentage was detected and the causes were removed.

Another source of error in the labor accounts, which gave considerable trouble in some yards during the early stages, was the success of some of the men in circumventing the methods of checking in and out of the gate. It might be supposed that gate checkings methods were sufficiently well known to prevent any errors of this sort, but here again reference must be made to the rapidity of expansion and inexperience of the shipbuilders' gate forces. To inadequate physical facilities was added the complication of numerous shifts and the practice of overtime work. In the face of these conditions the gate check not infrequently broken down to a considerable extent, often making it possible for men to claim credit for work when they were not actually present in the yard at all. This condition also showed much improvement as time went on.

The following is an illustration of this sort—a method which was fortunately discovered in time to prevent much abuse. It was found at one plant that a man rated at six dollars a day could hire a boy rated at three dollars a day to call out the higher priced man's number on entering the gate in the morning and leaving at night. The result was that the six dollar a day man was marked present on the muster rolls, although he turned in no ticket for his work. At pay day, when he received no pay for that day, he could claim that his job ticket must have been lost, as he was present on that day. An investigation of the muster rolls would apparently prove him in the right and upon his statement that he worked on such and such a job, there could be no other course than to grant him his pay. He could then split up with the boy whom he had engaged. Of course, this was a simple condition, but, like many others, it was actually worked until it was discovered or until the shipbuilder's gate force became adequate to handle the expansion of work. As an illustration of the expansion of work it may be stated that at some of the large shipyards the force increased over 400% within a year, a large part of this increase coming within the period of a few months.

Interpretation of Contracts

In addition to what may be termed the external features of cost inspection there arose a multitude of questions involving the interpretation of the contract terms. The final authority in such cases rests with the secretary of the navy who acts through a board appointed by him and known as the compensation board. In referring matters to the compensation board at Washington it is incumbent upon the local cost inspection boards at the shipyards to present arguments and data for guidance. This requires frequent conferences between the different inspectors and between the navy officers and the representatives of the shipbuilder. These conferences and the necessary investigations comprise a considerable part of the work of cost inspection and require constant alertness and continual reference to the principles of accounting as well as to those of law and engineering.

Auditing and Reports

The results of all the external inspections and the decisions of the boards are ultimately reflected in the accounting records of the shipbuilder. The navy cost inspector is responsible for auditing the records and ascertaining the correctness of the bills rendered by the shipbuilder. This amounts to a continuous audit comprising nearly all the phases customary in public accounting practice. The clerical accuracy of the bookkeeping must be thoroughly tested; satisfactory vouchers must be seen in a sufficient number of instances to establish the authenticity of the entries; authority for journal entries and all unusual items must be made evident; the building up of summaries must be critically examined; and, above all, the indirect expenses must be submitted to the closest scrutiny as to both the nature of items and the method of distribution.

As an aid in conducting this audit and for the purpose of providing the navy department with data in support of the bills rendered, it is necessary for the cost inspector to keep records and summary books agreeing with the shipbuilder's accounts. These are not intended to duplicate the shipbuilder's work, but are rather a supplementary record. From these records reports are rendered monthly to the navy department. It is in reliance upon these records as a summary of his audit that the cost inspector attaches his signature of approval to the bills.

Duties of a Factory Cost Accountant*

BY LEE HEYER WHITE

The field of the factory cost accountant is broad and diversified. His work, being largely of a constructive nature, demands a combination of qualifications in excess of the requirements of any other branch of private accounting. To solve satisfactorily the problems which confront him daily, he must possess breadth of vision, sound judgment, tact and executive ability. The results of his efforts vitally affect the purchasing, manufacturing, selling and administration departments of a business, as well as the accounting, and, therefore, he must be able to grasp the viewpoint, win the co-operation and influence the procedure of each.

Considering the scope of his work, the duties of a factory cost accountant naturally will be numerous and varied. They fall into certain definite groups, as follows:

1. Payrolls,
2. Stock records,
3. Shop accounting,
4. Cost finding,
5. Receiving reports,
6. Overhead expense,
7. Factory ledger,
8. Periodic statements.

PAYROLLS

Payrolls are an unquestioned necessity of every factory. To ensure their accuracy the cost accountant must secure daily time slips covering in detail the work of each factory employee, exclusive of office clerks who are paid from a private roll maintained under his supervision or by the general accounting department. Wage values must be computed on these slips and posted to the daily payroll sheets.

At the end of the week these daily sheets are totaled, compared with the clock card data compiled for each employee, and checked by department totals against corresponding time slip totals. The earnings of each individual are transcribed there-

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from to weekly payroll recapitulation sheets, which are forwarded to the cashier's department for payment, after necessary deductions from wages have been recorded thereon.

Maintenance of employment records for each employee and the preparation of accident reports should also be grouped with payroll work as an important although less vital feature thereof.

Stock Records

Properly compiled stock records are practically indispensable to the modern manufacturing business. It becomes the task of the factory cost accountant, therefore, so to keep the records that they will meet every possible requirement. All movements in and out of stores of raw materials, partly manufactured goods, finished products, supplies, fuel and other stocks must be recorded in such a manner that balances on hand of each item will be shown continuously.

Maximum and minimum limits must be established and thereafter frequently revised as a basis for determining when stocks are low—information which is exceedingly valuable to the purchasing and production departments. The purchasing department also requires periodic reports compiled from these records covering the consumption and quantities on hand of certain groups of materials, the advantageous purchasing of which is dependent upon market conditions.

It is not necessary to carry stock record balances in money value, but unit prices both of purchased and manufactured articles must be shown thereon and constantly revised, so that deliveries from stores for production and shipment may be correctly priced and inventories properly valued.

Lists of inactive items should be made up frequently and furnished to purchasing, manufacturing and sales departments to prevent the accumulation of obsolete stocks.

In order to ensure the accuracy of stock records, physical inventories must be requested systematically from the stores departments, as a basis for making necessary adjustments. This requires exercise of intelligent judgment because all items should be checked two or three times during a year without imposing unreasonable demands upon storekeepers or necessitating closing the plant for a general physical inventory.

It is essential, moreover, that stock records should be divided into groups which can be controlled by separate accounts in the factory ledger. It is possible then to extend in money value the quantity balances of one or more groups each month for the purpose of checking the controlling accounts and, furthermore, the work of preparing complete book inventories at the end of a fiscal period will be greatly expedited thereby.

Shop Accounting

The value of a cost accountant's efforts is limited by the accuracy of the data which he receives from the factory, because all his records are based thereon. It becomes his duty, therefore, to supervise shop accounting practice, which to a certain extent places shop clerks and even foremen under his jurisdiction.

This prerogative must be exercised wisely, for both patience and skill are required to persuade the average factory man that clerical detail is important and, instead of retarding production, is an aid thereto. The appearance of exercising divided authority merely arouses opposition and precludes the possibility of entirely satisfactory results which the willing co-operation of the factory organization will ensure.

Cost Finding

The routine, heretofore described, forms the basis of manufacturing costs. Thus material and labor records, after serving their purposes in stock record and payroll departments, are forwarded to the cost department to be used as cost data. They must be sorted by job numbers and filed, pending completion of an order or until the end of the month, when they should be totaled. to obtain quantities consumed and values of materials in case of requisitions, and production, productive hours and labor values in case of time slips.

The above records are entered in the monthly production summary which is arranged so that overhead expense can be added and the complete cost of each job will be shown by order number. Furthermore, the entire cost of the month's output will be segregated thereon by the stores accounts chargeable with the value of work in process and finished product manufactured and, also, by the stores and various department accounts to be credited with the value of the materials and partly finished product consumed, labor performed and overhead expense applied thereto.

On this summary should be shown also the differences between actual costs of products and the values at which they are carried on the stock records so that the required adjustment can be made subsequently.

Unit costs of all items on the summary must be determined for the purpose of revising stock record prices of regular products and for comparison with selling prices in case of special products. It is necessary periodically to send schedules of these unit costs of regular products to the price fixing department in order that important changes may be reflected in selling prices.

Numerous inquiries will be received from the sales department for costs on various special articles, which must be computed from the cost data previously compiled and by investigation of shop procedure that would be followed in the manufacture of these items. For this purpose, and for general information, unit costs when determined should be listed in comparative form on cost cards covering each size and kind of product manufactured.

Costs must also be determined for new construction work and extraordinary repairs and renewals in the same manner as production costs, but on separate summary sheets to keep them entirely distinct as they are chargeable to capital asset, reserve or operating expense accounts.

Cost records should be used as a means of controlling work in process. The factory cost accountant must call for department inventories finally to check this important asset, but the frequent need therefor will be obviated if inactive work in process as shown on the production summary is properly investigated and necessary adjustments are made.

Receiving Reports

Receiving reports are delivered to the factory cost accountant covering all goods received. These must be checked against copies of purchase invoices to ensure receipt of quantities and kinds of materials as billed. Unless this work is carefully performed, either materials in transit account, to which purchase invoices are temporarily charged when passed by the general accounting department, or inventory accounts may become overstated and a financial loss may be suffered.

Receiving reports are also priced from the purchase invoices for the use of the stock record department in revising purchase prices and for entry in the distribution journal to the debit of inventory, fixed assets or factory expense accounts and the credit of materials in transit.

Overhead Expense

Items charged to factory expense in the distribution journal must be further segregated in an expense distribution record arranged to show classes of expense, departments chargeable therewith and a total column to offset the factory expense column in the distribution journal. Withdrawals from stores that cannot be charged direct to orders in process are likewise entered in money value in this same expense distribution which also contains stores credit columns.

Time slips that bear overhead expense numbers must be sorted weekly by class of expense. The labor values thereof are then totalled and posted to the indirect labor distribution which is arranged to show class of expense and departments chargeable and also departments to be credited with the labor performed.

All overhead expense data require careful inspection to prevent charges being grouped under general expense which can possibly be allocated to departments, in order to avoid redistributing them on an arbitrary basis.

Monthly entries are made from the expense and indirect labor distribution to the factory ledger accounts indicated. When all overhead expenses, including fixed charges, have thus been segregated to the proper department accounts in the ledger, the monthly department overhead rates must be computed. At this point particularly the factory cost accountant must exercise judgment and care, for he seldom can adopt one unit as a basis for distributing the expense of all departments. He will find it necessary to determine for each department a unit based upon production, productive man hours, machine hours or productive labor which will distribute most equitably the expense of that department on the product manufactured. These rates when finally established may be used for statistical purposes only, as fluctuations therein may be slight, or investigation of monthly department balances may prove that they are due to temporary conditions which would not affect the rates already in use during a period of several months.

Factory Ledger

The results of the various activities of the cost accountant which have already been described must be consolidated in the factory ledger. This book should contain such asset accounts as inventory controls, divided in accordance with the stock record groups, fixed asset accounts, in which capital additions are carried during the current fiscal period so that they can be transferred in totals at the end thereof to the general accounting department, materials in transit and deferred charges accounts. Liability accounts will be required to cover general accounting department transactions, payrolls and current reserves, which should be handled in the same manner as the fixed asset accounts. There also must be accounts for each department of the factory and a general expense account arranged so that operating expenses can be classified according to the divisions in the distribution records. Furthermore, an inventory adjustment account must be kept in which the money value of all price and quantity adjustments affecting the stock records can be absorbed. This account demands the close attention of the factory cost accountant because, in serving as a medium to dispose of inventory losses and gains, it measures the efficiency of the entire cost accounting system. If the postings thereto involve large amounts, an immediate investigation must be started to discover the weaknesses responsible for the errors which made the inventory adjustments necessary.

Credits to the general accounting department covering purchases, fixed charges and payrolls paid will be debited direct by journal vouchers to materials in transit and department accounts in the factory ledger. In like manner the manufacturing cost of goods shipped, shipping expense and office maintenance charges must be debited to the general accounting department and credited to inventory, work in process and department accounts.

To complete the factory ledger postings, it is necessary to pick up monthly entries from all the records heretofore described, which must be arranged to cover every factory accounting transaction affecting any of the accounts mentioned above.

Finally, non-productive department accounts which cannot be distributed direct as overhead expense must be closed into general expense and thence apportioned to production departments. At this point the entire cost accounting work of a month should have

been embodied in the factory ledger in such a manner that it forms an actual and important part of the general financial accounts.

Periodic Statements

The factory cost accountant has now reached the final stage in the course of his monthly labors. From the factory ledger, which should be in balance, he draws off a trial balance and forwards it to the general accounting department to be incorporated in the monthly consolidated balance-sheet. Then he must prepare a comparative operating statement covering all departments in the factory, on which is listed in parallel columns for the present month and the preceding month the total operating cost of each department, divided according to the classifications in the subsidiary records. Interdepartment transactions are deducted to determine net operating costs, and department production figures and overhead rates are entered as further evidence of the condition of operating efficiency. He also should prepare a schedule showing the total operating cost of all departments, which must agree with the total of the net operating costs of individual departments.

The factory ledger supplies the data for all these monthly statements except production figures. These he obtains from the production reports, which must be compiled weekly from shop production records, time slips and notices of deliveries to stores, in order to furnish the factory management with necessary operating information.

Much of the factory cost accountant's work cannot be completed until after the close of the month which it covers. Owing, therefore, to its continuous or recurring nature, the routine of two months must often be in progress at one time. Consequently care and dispatch must be exercised in its performance in order to prevent the intermingling of cost data and the protraction of the work itself into a third month, which is sure to result in serious confusion.

The duties of the factory cost accountant can never become monotonous, because they repeatedly present themselves to him under too many different aspects; and the degree of success which he may hope to attain in their accomplishment depends solely upon the limit of his own versatility.

Candy Manufacturers' Accounts*

By William A. Shenton

This article is written for the purpose of outlining the essential and peculiar features in accounting for the business conducted by a class of candy manufacturers who produce a grade of hard candies formed in machine presses.

In recent years there has come into being a variety of business enterprises that have been developed through the exploitation of their wares or product by means of extensive advertising campaigns. Among such is this class of candy manufacturers.

Owing to the very nature of the industry, it must be more or less apparent even to the outsider that there must be certain fundamental factors contributing to the successful conduct of business of this sort. It is essential that there should be

(a) A meritorious trade name or brand;
(b) A national sales field;
(c) A gross profit margin sufficient to carry the advertising and selling costs;
(d) A standardized product.

A careful consideration of these factors suggests to the mind of the accountant certain basic requirements in accounting to meet the needs of concerns of this type. For instance, it will be seen that the management in order to direct the business intelligently must know with a reasonable degree of certainty the relationship between the cost of manufacturing, the cost of selling and the selling prices. A knowledge of these facts appears especially essential when it is known that as a matter of selling policy a considerable percentage of manufactured product is frequently distributed as free goods to the jobbers throughout the country.

The succeeding comments upon the nature of the accounts for this class of candy manufacturers relate to the accounting phases of the business in the order indicated below:

1. Factory accounts;
2. Advertising and selling expenses;
3. Financial.

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Factory Accounts

Nature of operations

It will be well, perhaps, to indicate fully at the outset the nature of the product and the operations through which it must pass until packed and ready for shipment. Naturally the principal ingredient or raw material would be sugar and as a matter of fact is granulated sugar. This is mixed with glucose, essential oils and other fluids and passes successively through a series of manufacturing operations, pulverizing and mixing, drying, blending and pressing, before the candy is produced in finished form.

The product must then be wrapped, labelled and packed in cartons and boxes before being ready for shipment. The cartons and boxes, however, are standard in respect to quantity. Each package contains a given number of candies, uniform in size and weight, each carton a given number of packages, and each box contains a given number of cartons. The factory accounts, therefore, are divisible into three separate divisions, namely, cost of manufactured candy, cost of labelling, wrapping and packing and cost of shipping.

It is not the intention to describe here in detail the various accounting steps necessary to obtain an accurate statement of costs, but to indicate these rather by an outline and to show at the same time the unusual features connected therewith. However, certain basic principles must be clearly understood. In order adequately to perform their proper functions the factory or cost accounts must of necessity be tied with the financial books of account, and such costs must embrace all the elements comprising cost of production, whether for raw materials, labor or manufacturing expenses.

Stores accounts

It is a well understood fact that it is as essential to control the quantity and value of stores as it is accurately to record cash transactions; and the need in this case is emphasized by the fact that tinfoil, an expensive, compact material and easily stolen, is used in quantities to wrap the candy, so that, unless some standards of control are established, losses of material due to theft would possibly never be noticed.

To reduce to the minimum possibilities of this sort and automatically to check incomplete and inaccurate records of materials delivered into production is a vital part of the duty of the cost

accountant. This may be facilitated by standardized quantity production under a system of factory or work orders, designed to control the issuance of sufficient stores to produce only the quantity of finished product called for by the work order and controlled by departmental delivery reports linked with the work order to which they are applicable.

The very nature of the business and the requirements of standardized production limit the kinds of raw and packing material stores necessary to be carried, and it has been found to be advantageous to keep individual stores accounts in the factory ledger. These stores accounts are designed to show, on the debit side, the date, name of vendor, price and amount of materials received and these charges may be posted direct from the audited voucher to the debit of the respective accounts affected. Likewise, stores delivered into production may be posted direct to the credit of these accounts from the material delivery tickets. Again these credits may be posted from such tickets as to quantities only and the extension of cost may be computed by one calculation at the end of the month. For example, by footing the debit quantities and amounts the average cost price of the material purchased during the month may readily be found, and thus by footing the credit or consumed quantities and applying the average cost price the extension in money values is readily ascertainable. Of course, this method of averaging prices might in many cases be very unsatisfactory, but with commodities not subject to excessive fluctuation and where it is necessary to carry comparatively small quantities in stock, no hardship is worked and the accounting is made simpler.

Production accounts

From the preceding paragraph it will be observed that the cost of raw materials consumed may be charged direct to the departmental cost accounts affected—this is meant to cover both the candy manufacturing and wrapping and packing departments. The cost of productive labor may also be applied to the departmental cost accounts direct from the payroll distribution. In like manner, specific overhead charges that are directly applicable to each particular department may be charged direct, such as repairs to machinery, power, rent, etc. There then remain for distribution to the various departments items of general overhead

that are not directly applicable to any particular department, and these, owing to the fact that the major portion of the direct labor is performed by hand rather than machine operations, may be distributed on the basis of productive labor hours.

As between the manufacturing and wrapping and packing departments, however, a conversion in the unit of cost must be made. Materials go into production on the basis of the unit of pounds, but in the wrapping and packing department the unit is a box, so that it is necessary to establish the weight of candy in each box in order to make the change to the final unit. The selling price, of course, is based on the box unit, so that the cost of sales must conform to that unit if proper comparisons are to be made.

Adequate waste reports must be made. For instance, breakage of candy constantly occurs in the wrapping and packing operations and credit should be made to cover the scrap value of this broken candy which, if clean, is returned to the pulverizing room and reground.

It is as essential to record the movement of materials between departments as it is to record the original issue of stores into production. This may be done on interdepartmental delivery forms, and the quantities shown thereon may be posted to the credit of material account of the department delivering and to the debit of the material account of the department receiving. The computation of cost may be established in one calculation at the close of the month in a manner similar to that described in the treatment of the stores accounts, except that the cost in the department delivering would first have to be assembled and to include the charge for raw materials, labor and burden before the credit could be applied and a corresponding charge made to the succeeding department.

These bookkeeping operations being performed, the results at closing periods will show the quantity and value of materials in process on hand in each department and finally the quantity and value of finished stock produced.

The shipments ordinarily comprise three classes, namely, goods sold, free goods and consignments to branch offices, and these must be treated differently in the general accounts. The cost of goods sold should be charged to cost of sales, the cost of

free goods to free goods account and the cost of consignments to branches should be charged to the stock accounts at each branch and carried at cost until sold.

Advertising and Selling Expenses

The aggregate expenditure during the year for advertising is apt to amount to a considerable sum and inasmuch as commitments of this sort are made some time in advance it is advisable to keep a separate register to record them. Such a record may be kept to show the total contracted for, the distribution of the several classes of advertising, namely, magazines, newspapers, street cars, outdoor display cards and others, and, in addition, provide for recording the number of the audited voucher and the reference to the "copy" that the voucher covered. This record would serve to show the outstanding commitments on advertising contracts and provide the means of comparison with the total advertising appropriation authorized.

The sales field is usually divided into territorial divisions. Some effort should be made to show the relationship between the advertising and selling costs and the sales returns. Of course, it is a practical impossibility accurately to apply advertising expenditures to sales, but managers need some statistics to guide them and to indicate the efficiency of the sales effort in the various divisions. The advertising expense covering newspapers, street cars, outdoor displays, etc., can be more or less definitely applied to the returns by divisions or subdivisions, but the application of advertising in national magazines is another matter. With regard to advertising in such magazines, the proper method of segregating the cost and applying it to the divisional or subdivisional sales returns is to do this on the ratio of the circulation of each magazine in each division to the total circulation of the magazine in the entire sales territory. However, magazine circulations are not always obtainable and the next best plan of distribution is that based on the ratio of the population in the division as compared with the total population in the sales field.

Direct selling expenses embracing salesmen's salaries and expenses and commissions may be more readily applied to the division wherein the expense is incurred. As a matter of fact, it

is usual, in addition, to assemble the results of each salesman's effort and apply the cost of selling connected therewith.

It must be clear that comparative statements of this character, showing the results and percentages of cost for the month and the period of the year to date, as compared with similar periods in preceding years, which are tied to and form a part of the monthly report to the management, must be of great value in formulating future sales policies.

Financial

Customers' accounts

The money value represented in the average sale is ordinarily small, but the volume of sales may be large. This means that granting credit becomes more a matter of policy and clerical routine than a special study of the responsibility of customers and the limits of credit to be extended. And, again, volume suggests the necessity for carefully watching the age of accounts on the books. Therefore, for the purpose of facilitating collections and to furnish the required data as to age and collectibility of the outstanding accounts, it will be well to prepare monthly trial balances subdivided as between "not past due" and "past due" accounts, with such further analysis of past due items as will indicate their age and probability of collection.

Machinery and equipment

Care should be exercised in distinguishing between capital outlay for machinery and equipment to see that the charges made actually represent the value of the fixed property and are not in reality items of an experimental character. It does frequently happen, especially in the early life of an enterprise of this sort, that considerable sums are expended in designing and constructing machines that never become serviceable; and, unless distinction is made between the cost of useful machines and the cost of experimental work on machines that have no productive value, the assets of the company will become unduly inflated.

It would seem clear that at best the cost of experimental work should be spread over only a limited period as compared with the cost of a machine useful for production purposes.

General

The fact that the product is standardized makes it possible to fill orders completely. In a single clerical operation can be

made all departmental copies of the order, but for the purpose of ready identification each copy should be made on different colored paper. These several copies of the order may include the following:

1. Acknowledgment of order.
2. Customer's invoice.
3. Factory order.
4. Shipping order.
5. Sales department record.
6. Collection record.
7. Bookkeeping posting record.

In conclusion, all accounts to be most useful must serve a constructive purpose, and this cannot be done unless the accounts are properly assembled and results promptly obtained. It is only when the managers are promptly furnished with proper accounting data that they are able best to direct selling policies, productive efforts and meet the needs of the business, financial or otherwise.

Depreciation and Depletion in Tax Returns*

By William Cairns

The government's attitude toward the accounting for property investments is being defined very rapidly, as the disparity between the various revenue laws which have been enacted during the last decade will show. Probably no branch of the science of accounting has received such detailed and reasonable consideration as this one. From the simple statement of an allowance for all "losses sustained within the year . . . including a reasonable allowance for depreciation of property," contained in the 1909 statute, to the elaborately described allowances defined in the 1918 revenue law is a big stride; and the accounting profession may well be gratified at the part it has played in bringing about the present condition of affairs.

The 1918 statute recognizes four main classes of allowable deductions from property investments, as follows:

1. Amortization, or the shrinkage in value due to market conditions.
2. Obsolescence, or the shrinkage in value due to the progress of the art.
3. Depreciation, or the shrinkage in value due to exhaustion, wear and tear.
4. Depletion, or the shrinkage in value due to exhaustion of mineral and other deposits, oil and gas wells and timber limits by extraction or cutting.

While no discussion of either the first or second deductions is contemplated by this article, it is relevant to note that amortization is allowed only to firms engaged in war industries, and further is deductible only from the investment in plant specifically used in that part of their business. It is inclusive of depreciation and, on property on which an amortization deduction is claimed, no deduction for depreciation will be considered for any period subsequent to December 31, 1917.

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The obsolescence allowance, although reportable as part of the depreciation deduction on the corporate return, is clearly differentiated from the latter, being defined as an allowance to cover the loss sustained by the normal progress of the art which governs the property in which the taxpayer's funds are invested.

The deduction for depreciation, as described in the 1918 revenue law, is based on sound accounting theory. The regulations call for a recognition of the salvage value of the depreciable property as a necessary factor in the calculation of the allowance. Heretofore this has been ignored by the department as non-essential; but now it is not only recognized but prescribed. There is further an expressed intention to recognize any reasonable method of computing the depreciation allowance, and, in view of this, the accountant's method becomes a question of real (in the sense of pecuniary) service.

A review of the various methods used by clients in computing depreciation shows that the average judgment applied to the treatment of this expense is uncalculating and thoughtless. The methods encountered in examining the accounts of various businesses are usually confined to:

1. The fixed rate method, and
2. The declining balance (unscientific) method.

While the declining balance (scientific) method is occasionally broached in discussion, it is rarely found in practical use.

Theoretical provision for depreciation supposes a return of the capital invested in any property through a charge to the expenses of operations, so that it is desirable to make as equitable distribution of the depreciable cost over the estimated period of usefulness of the property as possible. How do the various methods of computing depreciation, quoted above, do this?

The fixed rate method provides for an equitable distribution of the depreciation, per se, but as maintenance and repair costs are a gradually increasing quantity during the life of the majority of depreciable assets, it is obvious that the total deduction from income over a period of years will not be allocated equally to each year. For example, a building with an estimated life of 30 years and a residual value of 12½% would charge each year to depreciation under this method \$2.92 for every \$100.00 invested; but at the same time the maintenance and repair costs would be increasing from about 8 cents per \$100.00 in the

first year to $3.78 per $100.00 in the thirtieth year, so that the joint deduction would be a gradual increase from $3.00 per $100 in the first year, to $6.70 per $100 in the thirtieth year. Without deviating to amplify or rebut the arguments pro and con on the grievous question of method, the fixed rate method of depreciation does not permit the equitable return of the cost of a property investment.

The declining balance (unscientific) method provides for a fixed percentage deduction on the diminishing balance, without regard to any estimate of the life of the asset. To put it simply, it is no method at all. The only reason for commenting upon it is its widespread prevalence among reputable business organizations with an archaic sense of the fit. The unscientific part of the method is that, while the deduction from income each year for depreciation and maintenance combined will be nearer equal than under the fixed rate method, the cost of the property will never be retired. The accountant can render real service to the concern employing this method by a simple demonstration of the folly of paying taxes on expenses.

Neither of these two methods most commonly used in practice, then, will adequately satisfy the principle of equitable distribution. How does the declining balance (scientific) method fit this principle? Let us take again the example quoted above, that of the building with a life of 30 years and a residual value of 12½%. In place of the fixed sum of $2.92 per $100 per annum charged to depreciation, we would have a variable and declining amount which would range from $6.70 in the first year to about 80 cents in the thirtieth year. The maintenance would, of course, be the same, and therefore the combined deduction would only vary from $6.78 in the first to about $5.00 in the fifteenth year (its lowest point); thereafter rising again to $5.70 in the thirtieth year—perhaps as nearly equitable a distribution of the cost and carrying charges of this investment as could be made beforehand by estimates.

Now 1918 will probably be the peak tax year of this decade, if not of this generation. Indeed, only a pessimist could imagine the recurrence of such a year of penalty and pain upon the corporate dollar. And, if this is so, any reduction in the taxable income of a corporation for 1918 will be worth more than a similar reduction in amount in a subsequent year. Such a

reduction will save the average corporation 82.4% of that amount in its tax. As stated before, we hold no brief for the technically correct method. We have not seen, however, that it is anywhere contended, with reason, that the declining balance (scientific) method is unscientific. At best, the argument against it was that it was not so practical as the fixed rate method.

Well, let practice be the arbiter, and judge if it is not more practical to take a deduction of $67,000 for depreciation on a new million dollar building in 1918, as against a deduction of $29,200 calculated under the fixed rate method, merely because the declining balance (scientific) method involved more care and judgment in its application to the corporate records. Or, take the case in perspective: our joint charge for property shrinkage in value will gradually decline from $67,800 to $50,000 over the first fifteen years, increasing again to $57,000 in the thirtieth year—this as against a ratable increase from $30,000 in the first year to $67,000 in the thirtieth year. The government has driven the theorists to the crucible.

The revenue laws have forced recognition of another feature of this subject that accountants have neglected in practice. Depreciation is an element of cost of the work produced by virtue of the use of the property for which the depreciation allowance is claimed. As such, it is allocable pro rata to the finished product and to the work in progress. In shipbuilding and manufacturing concerns where accurate costs of unit production are desired, the allocation becomes necessary and is usually found to be made in practice; although one of the largest shipbuilders of the west has taken the position that depreciation expense is chargeable in toto against the year in which the depreciation occurred. This argument is the logical mate of the one that guides accountants in stating that "the profits before deducting depreciation were such and such," charges depreciation to surplus and reflects a halo of conservatism upon the directors. The practical method is simply for all manufacturing and quasi-manufacturing concerns like machine shops to exercise the same care in distributing depreciation expense to their finished and unfinished work as they do in dividing their labor charges. The one is no less an expense of production than the other.

The question of handling investments in patterns, models, drawings, etc., shows again the government's tendency to be liberal

in its dealings with the taxpayer. The 1917 statute required the taxpayer to capitalize the cost of successful patterns, etc., and make them the subject of a depreciation allowance, while it allowed him to write off the cost of unsuccessful patterns, etc., as a loss. The 1918 law, however, permits him either to write off the cost of his successful patterns, models and drawings or to capitalize them and depreciate them over their period of usefulness. As the vast majority of patterns, etc., are not worth a penny except to the concern which devised them, the reasonable and obvious course would be to recommend their reduction to a nominal sum.

The regulations provide that the taxpayer may take a deduction for loss incurred on investment in any property, the use of which has been discontinued, although no sale or other disposal has been made of the property. In the case of a subsequent sale or disposal of the property, where this option has been exercised, the taxpayer must report any additional loss or gain as a result of the sale.

The department has also taken the position, as defined in the regulations, of permitting depreciation on intangible assets. The following assets of this class are not, however, subject to any allowance for depreciation.

Goodwill,
Trade-marks,
Trade names,
Trade brands,
Secret processes,
Secret formulæ.

In depreciating patents the taxpayer is granted the right of revaluing them at March 1, 1913, if they were acquired prior to that date. This recognition of the rights of holders of valuable patents on that date is simple although belated justice.

An allowable deduction for depletion was first recognized by the 1913 statute. The prior enactment of 1909, although it provided for a deduction for "all losses sustained within the year ......including a reasonable allowance for depreciation of property," has since been construed by the supreme court as not allowing any claim for depletion of mineral deposits (Sargent Land Company case, 242, U. S. 503). The allowance granted by the 1913 law was limited to an amount equal to 5% of the market

value at the mine of the output for the taxable year. This was only a concession to justice, and the 1916 law raised the limitation from 5% to 100% of the market value of the output.

The deduction for depletion, as described by the 1918 law and regulations, provides for the loss through exhaustion of mineral and other deposits, oil and gas wells and timber limits through extraction or cutting. The speculative nature of investments in mining property has been given recognition in the present statute by the permission granted to the taxpayer who discovers mineral deposits or oil or gas wells to establish as his investment in the property an amount equal to the fair market value within 30 days from the date of discovery, where such market value is materially disproportionate to the cost of discovery. In all other cases the depletion will be based upon (a) the cost of the property, if acquired subsequent to February 28, 1913, or (b) the fair market value of the property as of March 1, 1913, if acquired prior to that date. These deductions are allowed only to operating owners, lessors and lessees.

The 1917 statute divided operators of mining property into two classes: (a) operators who own the fee and (b) operators who own a lease or leases. The capital recoverable through the depletion allowance by the first class of operators was based on (a) the cost of the property, if acquired subsequent to February 28, 1913, or (b) the fair market value of the property at March 1, 1913, if acquired prior thereto. The capital recoverable by the second class of operators was based on the cost of acquiring the lease, plus any royalties or development expenses that had been capitalized. The lease not being recognized by the department as "property," the lessee was discriminated against in the allowance granted him for recoverable capital, inasmuch as he was not allowed to re-appraise his lease at March 1, 1913, as were the holders of recognized property.

The 1918 law, however, has granted the lessee the right denied him by the previous statutes; and in consequence the relation between lessor and lessee has to be defined very clearly. Whereas the lessor, as owner of the fee, was entitled under the 1917 law to all the deduction for the fair market value of the property at March 1, 1913, the lessee becomes a participant in that deduction under the present statute, which provides that in no case may the joint deduction of lessor and lessee exceed the fair value of the

property. The lessor, in the capacity of owner, will be under the onus of proving the fair market value of the property, and the total deduction claimed shall be apportioned by agreement between lessor and lessee, the returns of both specifying the interest of the parties in the property.

Where the cost of a property and its fair market value have been determined, the department will permit no revaluation thereof at a later date; but this will not operate to prevent the taxpayer who discovers a mine subsequent to March 1, 1913, from re-establishing the fair market value within 30 days after discovery in lieu of the cost already established, where that cost is materially disproportionate to the market value.

Depletion, per se, applies only to the exhaustion of the deposits, oil, gas or timber, as the case may be; and any expenditures for plant and equipment required in the operation of the property will be the subject of a depreciation allowance, determined either according to the useful life of the equipment or according to the rate of exhaustion of the deposits, etc. Individual cases will determine the advisability as to which rate of depreciation to take. The regulations, however, having in view the fact that additional expenditures are necessitated to maintain the normal output of mines by reason of a longer haul or working at a greater depth, permit the taxpayer the option of charging off such expenditures to current operations or capitalizing and depreciating them.

Care must be taken to distinguish on the records the extent of the depletion and depreciation reserves and the difference between them. Any distribution by way of a dividend made from either of these two reserves will only be recognized provided the total surplus and undivided profits of the taxpayer have first been distributed; and then any such distribution must be specified as a return of capital.

In the case of a property which is leased for a consideration which provides for the payment of annual royalties based on a minimum quantity extraction of so many thousand tons of ore, etc., even if the ore is not actually mined by the lessee, the lessor may claim as a deduction from the royalty received the amount to which he would be entitled if the ore had actually been extracted. Where the lessee was delinquent in his operation of the property, this would naturally result in the lessor's securing a deduction for depletion of ore still in the ground; so that if he

were, through neglect on the part of the lessee, to repossess the property, he would be obliged to report as income the amount previously claimed as a deduction to the extent that it did not represent ore that had actually been extracted. Under the present sliding scale of taxation, this provision could easily work a hardship upon the taxpayer who finds himself in the embarrassing position of having to reacquire his property in 1918. No provision, however, is made for equalizing the situation by the filing of amended returns, and the logical recourse in such a case would be an appeal for reasonable consideration at the hands of the commissioner.

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EDITORIAL

Branch Office Ethics

It is an unusual week that passes without bringing some inquiry, protest or objection on the question of branch offices of accounting firms.

Originally in all professions the work was almost wholly individual. The lawyer, for instance, had his chambers in which he met his clients and personally served their needs. In the beginning the accountant, too, worked in a somewhat similar fashion.

There was something approaching the ideal in the relationships thus established, and these relationships might have continued undisturbed but for the growth of business both in volume and in the variety and extent of its ramifications. Accountancy has been and is more closely connected with this development of business than perhaps any other profession. As the servant of business it has, therefore, been inevitable that accountancy should conform in its development to the necessities imposed upon it by the development of business.

Thus, instead of the individual practitioner working alone, we find him working with and through a staff of assistants. As his practice extends he becomes a part of a firm and the members of the staff look forward to promotion not only to higher positions within the staff, but ultimately, if their talents and industry warrant, to positions as partners.

If the firm's practice includes many corporations operating in part through subsidiaries, or maintaining branch factories or other establishments at various points, the time comes when it seems necessary for the firm to establish one or more branch offices in order properly to take care of its practice. There is,

therefore, a sound reason for the branch office, and it may be said safely that the better firms which have adopted this form of organization have done so only as the interests of their practice have required. Such offices have not been established by them except as the growth of their professional work at a given point made it desirable to maintain there a branch office. Indeed, there is a general feeling among such firms that branch offices established on any other basis are a liability rather than an asset. The good name of the firm is necessarily at risk and may be seriously injured by the conduct of the branch manager, and such firms probably look upon the establishment of a new office with a feeling of reluctance rather than of eagerness.

Unfortunately some firms have pursued a policy of rapid development through the establishment of branch offices at points at which the firms have no established practice. In such circumstances the manager feels, if he is not told, that he must somehow make the office pay. This kind of branch office policy has given rise to just criticism and probably forms the basis of most of the adverse comment which is made upon the subject.

As an illustration of the questions which arise and the protests which are made against certain kinds of branch offices, the following letter written by a member of the American Institute of Accountants will be of interest. The city from which it is written is one of the large and flourishing centers of the middle west.

Editor. The Journal of Accountancy,

DEAR SIR:

It occurs to me that it would be of interest to some members of the profession if an article were written about the ethics of our profession as applied to the employment of assistants and their limitations.

The particular matters I have in mind just now are four:

1. Is the practice of sending out new employees without previous professional experience as branch office managers a wise one?

2. Is the practice of signing reports of work done by juniors without further supervision than an office inspection advisable?

3. What should be said of a branch office of a firm in which neither certified nor chartered accountants are employed? Should reports made up in such offices be signed there by employees not certified or chartered? If not, is it ethical to make up such reports for signature at some other office of the same firm where certified or chartered men are employed?

4. What should be said of the practice of certified accountants arranging with those not certified to sign their reports for a percentage of the fee, no supervision to be exercised?

These are not hypothetical questions. It is common report that each one of these practices is being carried out in this vicinity.

An editorial or other opinion from some one whose authority is recognized would be appreciated by some of us who are concerned for the good name of our profession.

Yours truly,

C. P. A.

P. S.—A Chicago firm of C. P. A.'s has an arrangement with a collection agency for forwarding mail, but the partners in the Chicago office advertise it as a regular office, of which they have eighteen on their letterhead. They haven't even desk room in this city and never had a man here or working from here.

Upon receipt of this letter it seemed well to obtain an opinion from the highest authority, and accordingly the correspondence was sent to Carl H. Nau, chairman of the committee on professional ethics of the American Institute of Accountants.

Perhaps the informal reply which was received will best express the professional feeling on the questions raised without any attempt to expand the matter into an article as is suggested by Mr. Nau.

* * * * * * *

He considers separately each of the four questions in the letter and comments upon them as follows:

1. Is the practice of sending out new employees without previous professional experience as branch office managers a wise one?

The answer must of necessity be an unqualified "No." The reason for this answer is so elementary and obvious that it would be as absurd to justify it as would be an attempt to prove an axiom by argument.

2. Is the practice of signing reports of work done by juniors without further supervision than an office inspection advisable?

The answer cannot be a categorical yes or no. Many things done by a junior whose ability and trustworthiness are known to his principal (especially if he has had previous opportunity to become fully informed upon and acquainted with the work in hand) can, with propriety and safety, be entrusted to him, under only such general supervision as every reputable accounting firm endeavors to maintain over its staff.

Every accountant's office is constantly called upon to exercise intelligent discrimination in this respect. The same junior who might be entirely relied upon in handling one examination would not, even in an emergency, be considered as qualified to conduct some other examination. One can imagine cases in which he might be entrusted with the supervision of several other juniors working on a single engagement, with only such office supervision as might be had by conference with and suggestions from his principal, whose advice is based entirely upon information reported to him by the junior, coupled with a prior knowledge of the business and affairs of his client.

Were the question directed at a general and indiscriminate policy of entrusting every kind of accounting work to juniors, without regard to the nature of the work or the qualifications of the junior doing it, or at an indiscriminate policy of signing reports without exercising the most painstaking care and judgment in discriminating, not only between juniors and seniors, but also between seniors and seniors, the answer would be that such a practice is not only unjustifiable but entirely reprehensible as well.

3. What should be said of a branch office of a firm in which neither certified nor chartered accountants are employed? Should reports made up in such offices be signed there by employees not certified or chartered? If not, is it ethical to make up such reports for signature at some other office of the same firm where certified or chartered men are employed?

I know of accountants who are not certified or chartered who, by education and experience, and both professional and ethical qualifications, are the peer of most certified or chartered accountants; indeed they are in every way superior to some who are certified or chartered. Because he is neither does not disqualify an accountant from preparing reports which may be signed by his employers, who may or may not be certified public accountants.

There are accountants who are members of the American Institute who are neither certified nor chartered and many more ought to be members.

There are some degrees of certified public accountant which are about as meaningless as the degree of M. D., which was more or less prevalent in my youth and could be obtained from a paper college, whose requirements were few, and the chief of which was the payment of a small fee.

A reputable firm of accountants will not employ a manager for a branch office who is not a capable and trustworthy accountant. A firm which was represented in a branch office by certified accountants who were not capable and trustworthy would be more reprehensible than the former.

I hope the time will soon come when all qualified accountants will be members of the American Institute of Accountants.

If any present members of the institute knowingly and deliberately certify to reports which are the result of careless or inefficient accounting work they are not worthy to be members thereof. If certified public accountants who are not members of the institute do so, it is an illustration of the ineffectiveness of attempting to infer professional or ethical conduct from the mere possession of a degree, as well as of the futility of attempting to discipline or use moral suasion with men who are in no way amenable to any rules or ethical precepts laid down by an organized body of the profession.

4. What should be said of the practice of certified accountants arranging with those not certified to sign their reports for a percentage of the fee, no supervision to be exercised?

If certified accountants engaged in this practice are members of the institute, charges should be preferred against them under rule (6), which reads as follows:

"No member shall certify to any accounts, exhibits, schedules or other forms of accountancy work which have not been verified entirely under the supervision of himself, a member of his firm, one of his staff, a member of this institute, or of a similar association of good standing in foreign countries which has been approved by the council."

If they are not members of the institute I despair of any results from bringing the matter to the attention of the state board of accountancy of almost any state.

* * * * *

There is much food for thought in the foregoing expression of opinion on four important questions. Sooner or later it is likely that the American Institute of Accountants will make some definite rules on the subject of what shall and what shall not constitute a branch office. In the meantime the views here given will be of much interest to everyone who considers the facts.

Income Tax Department

Edited by John B. Niven

To inquirers on abstract tax questions a pointed reminder is given by the commissioner of internal revenue, in a circular letter protesting against being subjected to a catechism of generalities and announcing his policy of answering only questions on specific cases, furthering the laudable object of collecting taxes due. Perhaps influenced by sympathy born of the experience of this department we are glad to assist in giving this announcement general circulation.

Mim. 2228, August 13, 1919.

Requests are being received daily for rulings and advice upon abstract cases or prospective transactions involving questions of income tax and profits liability. These requests are so numerous and the insistence on prompt action so great that it seems advisable at this time definitely to outline the bureau's policy which will govern the consideration of these requests.

The revenue act of 1918 departs widely at many points from prior law or practice, and has given rise to new questions of such importance, complexity, and number that the resources of the bureau are no more than adequate to advise taxpayers promptly of their present liabilities arising out of past transactions. It is impossible to answer every question which the invention or ingenuity of the inquirer may devise without neglecting *the fundamental duty of determining tax liability upon the basis of actual happenings.* Under these circumstances the administrative necessity is obvious of giving precedence over abstract or prospective cases to actual cases in which the taxpayer desires to know what are his immediate liabilities under the law.

It will be the policy of the bureau not to answer any inquiry except under the following circumstances:

(a) *The transaction must be completed and not merely proposed or planned.*

(b) *The complete facts relating to the transaction,* together with abstracts from contracts, or other documents, necessary to present the complete facts, *must be given.*

(c) *The names of all of the real parties interested* (not "dummies" used in the transaction) *must be stated regardless of who presents the question,* whether attorney, accountant, tax service or other representative.

Daniel C. Roper,
Commissioner.

Fiscal Years Ending in 1919 (Form 1120-A)

Not a little discussion has recently been aroused over an evident discrimination in the revenue act of 1918 against corporations whose fiscal years begin in 1918 and end in 1919. This discrimination has been

brought sharply to the attention of accountants through the issuance of form 1120-A by the treasury department. The method of calculation prescribed in this form for fiscal years ending in 1919 fails to allow the excess profits tax as computed separately at the respective 1918 and 1919 rates to be credited separately against the entire net income before calculating the income tax at the respective 1918 and 1919 rates. The method of calculation presented is, nevertheless, strictly in accord with the letter of the law, and was only adopted by the treasury department after prolonged and careful consideration. The point at issue depends on the relation to each other of sections 335 (b), 205 (b) and 236 (b). Section 335 (b) fixes the excess profits tax for fiscal years ending in 1919 at the sum of proportionate amounts of excess profits taxes calculated at the 1918 and 1919 rates, as follows:*

> "If a corporation makes a return for a fiscal year beginning in 1918 and ending in 1919, *the tax for such fiscal year under this title*—(III)—shall be the sum of (1) the same proportion of a tax for the entire period computed under subdivision (a) of section 301—(i. e., excess and war profits taxes at 1918 rates)—which the portion of such period falling within the calendar year 1918 is of the entire period, and (2) the same proportion of a tax for the entire period comput d under subdivision (b) or (c) of section 301—(i. e., excess and war profits taxes at 1919 rates)—which the portion of such period falling within the calendar year 1919 is of the entire period."

It is the excess profits tax thus determined, by a calculation independent of the apportionment of the income tax at the different rates for 1918 and 1919 under section 205 (b), that is applied as a credit, on line 15 of form 1120-A, against the income taxed at the 12 per cent. rate for 1918 and the 10 per cent. rate for 1919. For this treatment section 236 (b), which allows as a credit

> "the amount of any taxes imposed by title III for the same taxable year,"

is the authority. Only a special proviso, such as follows the above quoted phrase from section 236 (b) for fiscal years ending in 1918, would, in these circumstances, permit the excess profits tax at the 1918 and 1919 rates, respectively, to be credited separately against the entire net income before computing the income tax at the 1918 and 1919 rates. This proviso reads as follows:

> "Provided, that in the case of a corporation which makes return *for a fiscal year beginning in 1917 and ending in 1918,* in computing the tax as provided in subdivision (a) of section 205, the tax computed for the entire period under title II of the revenue act of 1917 shall be credited against the net income computed for the entire period under title I of the revenue act of 1916 as amended by the revenue act of 1917 and under title I of the revenue act of 1917, and the tax computed for the entire period under title III of this act at the rates prescribed for the calendar year 1918 shall be credited against the net income computed for the entire period under this title."

* Phrases between dashes — — our inserts.

It is inconceivable that it was the intention of the lawmakers, in thus adjusting for 1917-18 fiscal years a grievance that existed for 1916-17 fiscal years, to extend this privilege to only one year. The application of section 236 (b) might well be extended to all non-calendar fiscal years, and the *spirit* of the law followed rather than the mere *letter*.

The effect of the legal method of computation is to deprive a corporation with a year ending in 1919 of the benefit of the credit, for purposes of income tax at the 1918 rates, of a net amount equivalent to that proportion of the excess profits tax computed at the higher 1918 rates which the number of months in 1919 bears to twelve, minus that proportion of the excess profits tax computed at the lower 1919 rates which the number of months in 1918 bears to twelve. On this sum the loss is 2 per cent., the excess of the 1918 income tax rate over the 1919 rate.

It is interesting to note that a corporation having a fiscal year ending June 30, 1919, suffers most, and the loss is equal for fiscal years ending at dates equidistant from June 30th, whether prior or subsequent thereto. For instance, if the same set of figures be used, it will be found that the increase in tax will be exactly the same for fiscal years ended May 31, 1919, and July 31, 1919, April 30th, 1919, and August 31, 1919, etc., down to January 31st and November 30th.

The bureau of internal revenue has announced that the advisory tax board will be dissolved at the end of September. This decision was reached after careful consideration and is based upon the facts that the board has substantially accomplished the purposes for which it was created and that the present members may not reasonably be expected to remain longer away from their businesses and professions.

TREASURY RULINGS

T. D. 2883, granting an extension of time to August 15th to partnerships and personal-service corporations—and to these only—having a fiscal year ended in 1919 prior to May 31st, was issued too late for publication in the August number of the Journal.

T. D. 2892, amending Article 307, is omitted because it is superseded by T. D. 2906, which gives the latest information as to those countries which either do or do not satisfy the similar credit requirement of the statute as to nonresident alien individuals entitled to personal exemption and credit for dependents. The new names under each group are shown in italics.

A lengthy decision of the United States court of appeals, embodied in T. D. 2899, applies only to life insurance companies and interprets the meaning of paragraph G, subdivision (b) of section 2 of the act of October 3, 1913. Being in conformity with section 233 (a) 1 of the revenue act of 1918 and article 549 of regulations 45, only the summary of the findings is repeated. It is to the effect that life insurance companies may exclude from gross income only such dividends returned to policy-holders as do not exceed premiums received *from the same policy-holders in the same year;* but that "redundancies"—the "excess of the actual premium or premiums paid by a policy-holder over the

subsequently ascertained cost of his insurance for any given year or years"—may neither be excluded from gross income nor deducted in determining net income. It is not claimed that this treatment is the most equitable, but rather that it is in accordance with the clear distinctions drawn in the law, from 1913 down to date.

With respect to determining the consolidated invested capital for excess profits tax purposes under the act of 1917, paragraph F of T. D. 2662 is modified by T. D. 2901. Under the former the assets of affiliated or subsidiary companies were, for purposes of computing consolidated invested capital, valued, not as of the date when the stock of the subsidiary company was acquired by the parent company, but as of the date when the subsidiary company originally acquired such assets. Under the amendment, however, when the stock of the subsidiary is acquired for cash, the cash so paid shall be the basis for determining the value of the property acquired, instead of the conditions existing at the date when the subsidiary originally acquired the assets. Where stock of a subsidiary is acquired with stock of the parent company, the amount to be included in the consolidated invested capital as to the company acquired shall be computed in the same manner as if the net tangible assets and the intangible assets had been acquired instead of the stock. This makes clear how it is possible to demonstrate a capital surplus under articles 55 to 59 inclusive, and article 63 of regulations 41 of the revenue act of 1917, just as under section 326 (a) 2 of the revenue act of 1918 and article 836 of regulations 45—but the rule, of course, works both ways.

T. D. 2903 is of interest to the general public for the reassurance given by the commissioner's warning to his force, that divulging of information contained in the returns of taxpayers is a punishable misdemeanor.

Instructions relative to acceptance of treasury certificates of indebtedness maturing September 15 and December 15, 1919, similar to those of articles 1731-1732 for earlier maturities, are contained in T. D. 2907. The interest coupons must be detached and collected by the taxpayers.

(T. D. 2883, July 9, 1919)

Income tax

Extension of time for filing returns of partnerships and personal-service corporations having a fiscal year ended prior to May 31, 1919.

An extension of time to August 15, 1919, for filing returns is hereby granted to partnerships and personal-service corporations having a fiscal year ended January 31, February 28, March 31, or April 30, 1919.

(T. D. 2899, July 24, 1919)

Income tax—Decision of court

1. Dividends excluded from gross income.

Under the provisions of paragraph G, subdivision (b) of section 2 of the act of October 3, 1913, that "life insurance companies shall not include as income in any year such portion of any actual premium received from any individual policyholder as shall have been paid back or credited to such individual policy holder within such year," a life insurance company is not entitled to exclude from its total income during the taxable year, for the purpose of ascertaining its

gross income, any dividends paid or credited to policy holders from whom it did not receive any premium during that year; and as to such policyholders as it did receive premiums from that year it is entitled to exclude only such part of the dividends paid to those policyholders as did not exceed the amount received from them, respectively, by way of premiums during that year.

2. DIVIDENDS CONSISTING OF REDUNDANCIES IN PREVIOUS PREMIUM PAYMENTS.

None of the cash dividends paid by a life insurance company to its policyholders which represent redundancies in previous premium payments are deductible from gross income in annual tax returns as "sums other than dividends paid within the year on policy . . . contracts."

The . . . decision of the United States circuit court of appeals for the third circuit in the case of *Lederer, collector,* v. *Penn Mutual Life Insurance Co.,* is published for the information of internal revenue officers and others concerned.

(T. D. 2901, July 29, 1919)

Excess-profits tax, revenue act of 1917

Modification of paragraph F of T. D. 2662

Paragraph F of T. D. 2662, which reads as follows:

Assets of affiliated or subsidiary corporations which have to be adjusted to meet the statutory limitations prescribed by section 207 shall be valued as of conditions existing at the dates when such assets were acquired by the respective affiliated or subsidiary corporations and not as of the date when the stock in such affiliated or subsidiary corporations was acquired by the parent or controlling corporation,

is hereby amended to read as follows:

When all, or substantially all, of the stock of a subsidiary corporation was acquired for cash, the cash so paid shall be the basis to be used in determining the value of the property acquired. Where stock of a subsidiary company was acquired with the stock of the parent company, the amount to be included in the consolidated invested capital in respect of the company acquired shall be computed in the same manner as if the net tangible assets and the intangible assets had been acquired instead of the stock. If in accordance with such acquisition a paid-in surplus is claimed, such claim shall be subject to the provisions of articles 55 and 63 of regulations 41.

(T. D. 2903, July 30, 1919)

Information contained in returns

Laws relating to the giving out, by employees of the bureau of internal revenue, of information contained in returns filed by taxpayers or in reference to office procedure with respect to the auditing of returns, handling of claims, and similar lines of work.

Your attention is directed to the following legislation relating to the divulging of information contained in the returns of taxpayers.

Section 257 of the revenue act of 1918 provides—

That returns upon which the tax has been determined by the commissioner shall constitute public records; but they shall be open to inspection only upon order of the president and under rules and regulations prescribed by the secretary and approved by the president: *provided,* that the proper officers of any state imposing an income tax may, upon the request of the governor thereof, have access to the returns of any corporation, or to an abstract thereof showing the name and income of the corporation,

at such times and in such manner as the secretary may prescribe: *provided further,* that all bona fide stockholders of record owning 1 per centum or more of the outstanding stock of any corporation shall, upon making request of the commissioner, be allowed to examine the annual income returns of such corporation and of its subsidiaries. . . .

Section 3167, *Revised Statutes,* as amended by section 1317 of the said revenue act of 1918, provides:

It shall be unlawful for any collector, deputy collector, agent, clerk, or other officer or employee of the United States, to divulge or to make known in any manner whatever not provided by law to any person the operations, style of work, or apparatus of any manufacturer or producer visited by him in the discharge of his official duties, or the amount or source of income, profits, losses, expenditures, or any particular thereof, set forth or disclosed in any income return, or to permit any income return or copy thereof or any book containing any abstract or particulars thereof to be seen or examined by any person except as provided by law; and it shall be unlawful for any person to print or publish in any manner whatever not provided by law any income return, or any part thereof, or source of income, profits, losses, or expenditures appearing in any income return; and any offense against the foregoing provision shall be a misdemeanor and be punished by a fine not exceeding $1,000 or by imprisonment not exceeding one year, or both, at the discretion of the court; and if the offender be an officer or employee of the United States he shall be dismissed from office or discharged from employment.

Section 3152, *Revised Statutes,* as amended by the act of March 1, 1879, authorizing the employment of internal revenue agents, also provides:

And all provisions of sections thirty-one hundred and sixty-seven, . . . of the *Revised Statutes* shall apply to internal revenue agents as fully as internal revenue officers.

Section 3173 of the revenue act of 1918 provides that—

It shall be the duty of any person, partnership, firm, or association, or corporation, made liable to any duty, special tax, or other tax imposed by law, when not otherwise provided for, (1) in case of a special tax, on or before the thirty-first day of July in each year, and (2) in other cases before the day on which the taxes accrue to make a list or return . . .: *provided,* that if any person liable to pay any duty or tax, or owning, possessing, or having the care or management of property, goods, wares, and merchandise, articles, or objects liable to pay any duty, tax, or license, shall fail to make and exhibit a list or return required by law, but shall consent to disclose the particulars of any and all the property, goods, wares, and merchandise, articles, and objects liable to pay any duty or tax, or any business or occupation liable to pay any tax as aforesaid, then, and in that case, it shall be the duty of the collector or deputy collector to make such list or return. . . .

Section 3176, *Revised Statutes,* as amended by said section 1317, revenue act of 1918, further provides:

If any person, corporation, company or association fails to make and file a return or list at the time prescribed by law or by regulation made under authority of law, or makes willfully or otherwise, a false or fraudulent return or list, the collector or deputy collector shall make the return or list from his own knowledge and from such information as he can obtain through testimony or otherwise. In any such case the commissioner may from his own knowledge and from such information as he can obtain through testimony or otherwise make a return or amend any return made by a collector or deputy collector.

Reading these provisions of law together, it is evident that any collector, deputy collector, agent, clerk, or other officer or employee of the bureau of internal revenue, including internal-revenue agents, who divulges or makes known in any manner whatsoever not provided by law the amount or source of income, profits, losses, expenditures, or any particulars thereof set forth or disclosed in any income return made by any taxpayer, or by a collector or deputy collector, or by the commissioner of internal revenue, or who permits any income return or copy thereof, or any book containing any abstract or particulars thereof, to be seen or examined by any person, except as provided by law, or who prints or publishes in any manner whatever, not provided by law, any income return or any part thereof, or source of income, profits, losses, or expenditures appearing in any income return, is guilty of a misdemeanor and subject to a fine not exceeding $1,000 or to imprisonment not exceeding one year, or both, at the discretion of the court, and if he be an officer or employee of the United States, to be dismissed from office or discharged from employment.

The only provisions of law authorizing the making known of any income return under the revenue act of 1918 are those contained in section 257 of said act, above quoted.

Similar provisions to those contained in section 257, revenue act of 1918, and sections 3173 and 3176, as amended by said revenue act of 1918. were also contained in the act of October 3, 1914, and the act of September 8, 1916.

(T. D. 2906, August 5, 1919)

Income Tax.

Amending article 307, final edition of regulations 45, dealing with nonresident alien individual entitled to personal exemption and credit for dependents.

The final edition of regulations 45 is amended by changing article 307 to read as follows:

Art. 307. *When nonresident alien individual entitled to personal exemption*—(*a*) The following is an incomplete list of countries which either impose no income tax or in imposing an income tax allow both a personal exemption and a credit for dependents which satisfy the similar credit requirement of the statute: Argentina, *Belgium, Bolivia,* Bosnia, Brazil, Canada, Carinthia, China, *Chile,* Cuba, Dalmatia, Denmark, *Ecuador, Egypt,* France, Herzegovina, Istria, Mexico, Montenegro, *Morocco, Newfoundland, Nicaragua, Norway, Panama,* Persia, *Peru,* Portugal, Roumania, Russia (*including Poles owing allegiance to Russia*), *Santo Domingo,* Serbia, *Siam, Spain,* Union of South Africa, *Venezuela.*

(*b*) The following is an incomplete list of countries which in imposing an income tax allow a personal exemption which satisfies the similar credit requirement of the statute, but do not allow a credit for dependents: Bachka, Banat of Temesvar, Croatia, *El Salvadore, India,* Italy, Slavonia.

(*c*) The following is an incomplete list of countries which in imposing an income tax do not allow to citizens of the United States not residing in such country either a personal exemption or a credit for dependents and, therefore, fail entirely to satisfy the similar credit requirement of the statute: Australia, *Costa Rica,* Great Britain and Ireland, Japan, *The Netherlands,* New Zealand. The former names of certain of these territories are here used for convenience, in spite of an actual or possible change in name or sovereignty.

A nonresident alien individual who is a citizen or subject of any country in the first list is entitled for the purpose of the normal tax to such credit for a personal exemption and for dependents as his family status may warrant.

If he is a citizen or subject of any country in the second list he is entitled to a credit for a personal exemption, but to none for dependents.

If he is a citizen or subject of any country in the third list he is not entitled to credit for either a personal exemption or for dependents.

If he is a citizen or subject of a country which is in none of the lists, then to secure credit for either a personal exemption or for dependents he must prove to the satisfaction of the commissioner that his country does not impose an income tax or that in imposing an income tax it grants the similar credit required by the statute.

(T. D. 2907, August 7, 1919.)

Income and profits taxes.

Instructions relative to acceptance of treasury certificates of indebtedness for income and profits taxes, supplementing articles 1731 and 1732, regulations 45.

Collectors of internal revenue are directed to receive at par United States treasury certificates of indebtedness of series T4, dated June 3, 1919, maturing September 15, 1919, and series T6, dated July 1, 1919, maturing September 15, 1919, in payment of income and profits taxes payable on September 15, 1919, and to receive at par United States treasury certificates of indebtedness of series T5, dated June 3, 1919, maturing December 15, 1919, and series T7, dated July 1, 1919, maturing December 15, 1919, in payment of income and profits taxes payable on December 15, 1919. Collectors are authorized to receive such certificates in payment of such taxes, respectively, prior to the dates when the certificates, respectively, mature. The certificates of said series have one interest coupon attached, payable at the maturity of the certificates, respectively, but such coupons must in all cases be detached by the taxpayer and collected in ordinary course when due. The amount, at par, of the treasury certificates of indebtedness presented by any taxpayer in payment of income and profits taxes must not exceed the amount of the taxes to be paid by him, and collectors shall in no case pay interest on the certificates nor accept them for an amount other or greater than their face value.

Deposits of treasury certificates of indebtedness received in payment of income and profits taxes must be made by collectors with the federal reserve banks of the districts in which the respective collectors' offices are located, unless otherwise specifically instructed by the Secretary of the Treasury. Specific instructions mav be given in certain instances for the deposit of the certificates with federal reserve banks of other districts and with branch federal reserve banks, and the term "federal reserve bank," where it appears herein, includes such branches. Treasury certificates accepted by the collectors prior to the dates when the certificates, respectively, mature should be forwarded by the collector to the federal reserve bank to be held for account of the collector until the date of maturity, and for deposit on such date. Certificates of indebtedness should in all cases be stamped as follows by the collector, and when so stamped forwarded to the federal reserve bank by registered mail, uninsured.

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This certificate has been accepted in payment of income and profits taxes and will not be redeemed by the United States except for credit of the undersigned.

..............................,

Collector of internal revenue for the .... district of ....

Collectors of internal revenue are not authorized, unless otherwise notified by the secretary of the treasury, to receive in payment of income

or profits taxes interim receipts issued by federal reserve banks in lieu of definite certificates of the series herein described.

Collectors should make in tabular form a schedule in duplicate of the certificates of indebtedness to be forwarded to the federal reserve bank, showing the serial number of each certificate, the date of issue and maturity, and face value. Certificates of indebtedness accepted prior to the date of maturity must be scheduled separately. At the bottom of each schedule there should be written or stamped "Income and profits taxes, $....," which amount must agree with the total shown on the schedule. One copy of this schedule must accompany certificates sent to the federal reserve bank and the other be retained by the collector. Such income and profits tax deposits must in all cases be shown on the face of the certificate of deposit (national bank form 15) separate and distinct from the item of miscellaneous internal-revenue collections (formerly called "ordinary"), but it is not necessary to give the separation into corporation income, individual income, and profit taxes.

Until certificates of deposit are received from the federal reserve banks, the amounts represented by the certificates of indebtedness forwarded must be carried by collectors as cash on hand, and not credited as collections, as the dates of certificates of deposit determine the dates of collections.

For the purpose of saving taxpayers the expense of transmitting such certificates as are held in federal reserve cities to the office of the collector in whose district the taxes are payable, taxpayers desiring to pay income and profits taxes by Treasury certificates of indebtedness acceptable in payment of such taxes, should communicate with the collector of the district in which the taxes are payable and request from him authority to deposit such certificates with the federal reserve bank in the city in which the certificates are held. Collectors are authorized to permit deposits of treasury certificates of indebtedness in any federal reserve bank with the distinct understanding that the federal reserve bank is to issue a certificate of deposit in the collector's name covering the amount of the certificates of indebtedness at par and to state on the face of the certificate of deposit that the amount represented thereby is in payment of income and profits taxes. The federal reserve bank should forward the original certificate of deposit to the treasurer of the United States, with its daily transcript, and transmit to the collector the duplicate and triplicate, accompanied by a statement giving the name of the taxpayer for whom the payment is made in order that the collector may make the necessary record and forward the duplicate to the office of the commissioner of internal revenue.

This treasury decision amends and supplements the provisions of articles 1731 and 1732 of regulations 45.

Students' Department

EDITED BY SEYMOUR WALTON

(ASSISTED BY H. A. FINNEY)

In regard to the following attempt to present the correct answers to the questions asked in the examination held by the American Institute of Accountants in May, 1919, the reader is cautioned against accepting the answers as official. They have not been seen by the examiners—still less endorsed by them.

INSTITUTE EXAMINATION

AUDITING

Question 1:

How would you verify the accuracy of accounts receivable from trade customers—

(a) In a detailed audit;

(b) In a balance-sheet audit?

Answer to question 1:

(a) In a detailed audit a thorough examination should be made of the records of transactions appearing in the books of original entry. This would involve an inspection of vouchers of all kinds with the object of satisfying the auditor that the books of original entry contain a true record of the transactions which occurred during the period.

The entries in the sales book should be verified by reference to orders, duplicate invoices and shipping records. Vouchers authorizing credits for returns and allowances, freight, discount and other non-cash items should be examined and authorizations noted. The audit of the cashbook will satisfy the auditor as to the adequacy of the system of internal check safeguarding cash receipts and will indicate whether or not there is an opportunity to misappropriate cash and cover the shortage in the accounts receivable by lapping, by substituting non-cash for cash credits or by some other device.

A part of the work of a detailed audit is the verification of the footings of all books of original entry. In so far as column totals are posted to the accounts receivable account, the verification of these totals may be considered to be part of the accounts receivable audit. After proving the correctness of the books of original entry, the postings to the controlling account should be checked. If no controlling account is kept, the auditor should make up one for himself. The total of the trial balance taken from the customers' ledger should, of course, exactly agree with the balance of the controlling account. The customers' ledger should be footed and each individual balance verified, or at least sufficient tests should be made of the balances to satisfy the auditor.

No accounts should be included in this category except those that originate from sales. All accounts representing goods shipped on con-

signment, advances to salesmen, overdrafts of officers and employees or other cash advances should be rigidly excluded and entered under appropriate classifications.

In order to prove that the balances called for by the ledger represent accounts that are still active and that no part of them has been paid in cash or reduced by rebates and allowances, it is necessary to send an auditor's note to each customer. This is best done by the auditor's using a rubber stamp to print on each statement a polite request to the customer to report any discrepancy direct to the auditor. The statements thus stamped are the regular monthly statements to customers, which the auditor has checked to a trial balance which has already been or soon will be compared with the ledger. The auditor should enclose these statements himself in envelopes with his own return address on them and should mail them himself. Otherwise it would be possible for a fraudulent statement not to be mailed at all, or to be sent to a false address.

These steps will verify the accuracy of the balances. If the question is intended to cover also the accuracy of items making up the accounts, it will be necessary to investigate further. Except for small accounts, the auditor should verify all credits other than cash and should require evidence for returns and allowances, freight, discounts allowed after the usual dates and any other credits which may have been made to take the place of cash remittances which had been abstracted, without disturbing the correctness of the final balance.

If the question is intended to cover the accuracy of the valuation, it will be necessary to ascertain from the records what has been the normal loss from bad debts in the past, as a guide to the size of the reserve that should be established. The accounts should also be classified as to their being current or more or less past due. It may be that this classification will show that doubtful accounts have been kept on the books longer than they should be and that the reserve should be much larger than the dilatory practice of the past would require.

(b) In a balance-sheet audit the principal object is to ascertain whether or not the items appearing on the balance-sheet are represented at their proper values. It will therefore be necessary to prove the accuracy of the balances of customers as a total by testing the controlling account and ascertaining whether the subsidiary ledger is in balance with it. If audit notices are not sent to customers, the sales for the last month should be investigated to see that no fictitious sales have been put through to swell the total. The usual proportion between outstanding customers' balances and sales should be used as a guide in judging whether there is reason to suspect any fictitious increase in the total or not. The individual accounts should be scrutinized in a general way to detect any irregularities, such as the non-payment of a September item when all the October and November bills have been settled, indicating a disputed account. The adequacy of the reserve for bad debts should also be judged in the light of past experience and the condition of the accounts.

Question 2

In a balance-sheet audit how would you verify as to quantities and amounts the inventory items
(a) Goods in process;
(b) Repair and replacement parts for the concern's product?

Answer to question 2:

(a) If an adequate cost system is in use and is being correctly carried out, the various elements of cost will have been added to the goods as the work progresses and the balance of the goods in process account should be a close approximation of the value of the goods themselves.

Where no good cost system is in use, it is next to impossible to verify the value of the partly finished goods. However, even in the crudest factory methods, there is always some system for keeping a certain amount of track of what is being done. The person who keeps these records should be required to indicate the way in which the figures are obtained, and the auditor should be able in a general way to determine how nearly accurate the values are.

The auditor may be guided somewhat by the valuations given in the inventories of raw materials and finished products. If they are found to be fairly obtained, there is every reason to believe that the valuation of goods in process is equally trustworthy.

The condition of the business itself is an important point. A concern that has sufficient capital and is making good profits is not tempted to swell its resources or increase its apparent profits by over-valuing any of its inventories. If the concern is deficient in capital or profits the auditor should be much more thorough in his investigation of the inventories.

(b) This part of the question is understood to mean those articles which are part of the finished product which wear out in a comparatively short time and are either sold to those who have previously purchased the complete product or given to them under the conditions of a guarantee.

In either event an account should be kept with them which would show the original number made, the number entering into original sales and the number subsequently sold or delivered under guarantees. This means that they would be treated in the same way as finished product, part of which is transferred to other departments of the factory and part retained in stock as finished goods on hand. The inventory would be proved by the cost of the goods made, cost of those transferred to other departments, cost of those sold or given away and, finally, cost of those still on hand.

Question 3:

You are informed that during the period covered by a balance-sheet audit, which you have made, a defalcation was going on in the petty cash which was not discovered by you. You are asked to write a letter of explanation to the board of directors. Explain what you would do, and draft such a letter.

Answer to question 3:

It is assumed that when the instructions were given to make the audit it had been distinctly stated in writing that the scope of the work was

to be confined to ascertaining the condition of the assets and liabilities of the company. If I had not done this before I began the audit, I should have covered the omission as far as possible in my report at the end. If I had done neither of these, I would find it difficult to persuade the directors that I was not shielding myself behind a mere professional technicality.

My letter would be along some such lines as the following:

To the Directors of the X Co.

Gentlemen:

Referring to the audit recently completed by me for your company, I am informed that there existed at the time a defalcation in the petty cash that I did not discover.

In my written proposal to make the audit of your affairs, I stated that I understood that I was to make what is technically known as a balance-sheet audit, which means an investigation that will suffice to show the present condition of the company, as to whether the assets that the books showed to be on hand were actually on hand and that none had been omitted from the books that were in reality on hand, and also that the assets were valued on a proper basis, that all the liabilities were shown by the books, that they were actual liabilities and that they had been properly incurred.

In an audit the scope of which is limited to this extent, the clerical accuracy of the books must necessarily be taken for granted. The auditor does not verify the additions of the cashbook nor the correctness of ordinary vouchers. It is therefore entirely possible for a small or even a comparatively large defalcation to exist which the auditor would have no means of discovering. To discover any such shortage it would be necessary to make a much more detailed audit.

As this point was explicitly covered in my written contract and in my report, I trust that you will see that I was in no way to blame for not discovering the defalcation which existed.

Yours very truly,

JOHN DOE.

Question 4:

How would you treat cash discounts on capital expenditures, such as for new machinery?

Answer to question 4:

They should be treated as deductions from the cost of the assets purchased, even by those who consider discounts taken on revenue expenditures as rewards or profits of capital. In the latter case the discount increases the net profit, either by reducing the cost of operation or by increasing the financial income in the same way as interest received. In any event it is included in the results of the sales of goods. As profits cannot be made on the purchase, but only on the sale of assets, and as capital assets are purchased only and not sold, the discount gained with them cannot be considered a profit, but must be treated as a saving.

Question 5:

In auditing the accounts of a corporation for the year ended December 31, 1918, you find that for the first time there were taken into con-

sideration goods to be received after January 1, 1919, which you find were covered by firm contracts. The purchase price of the goods was charged to purchases account as of December 31, 1918, and credited to the vendor. In the inventory the goods were taken at 20 per cent. less than cost. You find that the market price was in fact 80 per cent. of cost. Tax statements have been prepared in accordance with the books.

Give your opinion as to the wisdom and propriety of the course adopted and your advice as to reflecting the foregoing in the balance-sheet.

Answer to question 5:

A. Lowes Dickinson says "contracts of purchase made for future delivery form a class of items that call for consideration in connection with inventory valuations. As long as such contracts are made in the ordinary course of business for the purpose of supplying its actual needs as they accrue, no question need be raised in connection with a balance-sheet as of a date prior to the date of delivery."

As the goods will not be on hand until the year in which they are to be used, the loss on them will be a loss of the year in which they are delivered, if there is any loss at all. There will be no actual loss unless the selling price drops so low as to wipe out all the margin of profit. If not, there will be merely a reduction of the amount of profit made, which cannot be determined until the goods are sold. In the meantime the market price may have rallied all of the 20 per cent. or more.

A contract for future delivery is a matter of sufficient importance to be mentioned in a report to stockholders or to bankers, because of the demand which such a contract may make on current funds in the near future. But the goods to be delivered in the future are not a present asset of the purchaser under the contract, and the obligation to pay for them is not a present liability. Even if the market price had not dropped to 80 per cent. of the contract price, it would be incorrect to put the transaction through the books as a purchase because of the resulting overstatement of the purchases, the inventory and the liabilities.

The error is made much more serious by reason of the drop in the market. The effect of putting the contract through at contract price and adding the goods to the inventory at 80 per cent. thereof, is

An overstatement of purchases amounting to 100% of the contracts;
An overstatement of inventory amounting to 80% of the contracts;
An understatement of profit and surplus amounting to 20% of the contracts;
An overstatement of liabilities amounting to 100% of the contracts.

This is contrary to correct accounting principles; moreover, it would unquestionably be disallowed by an income tax inspector because of the understatement of the profits. It might be possible to satisfy the inspector if the company could show that this procedure had been consistently followed in the past, but the question states that this is the first time it has been done.

Question 6:

Discuss the various methods of handling containers in different businesses. In each case describe the duty of the auditor.

Answer to question 6:

Sometimes the containers are charged to the customers at cost through a special column in the sales book and on the ledger, with a corresponding record for those returned and credited. In this case there is an account kept with them, the debit balance of which is supposed to represent the number outstanding at cost. Under such conditions the duty of the auditor is merely to see whether the concern is in the habit of enforcing payment for those not returned. If it is, the amount due for empties is just as much an asset as is the account for goods. If the company is lax in this regard, the auditor should ascertain the usual loss and should set up a reserve against it.

Sometimes the account is kept only in quantities. If the customer has paid cost or more and is allowed to return them at cost or less, no attention need be paid to them by the auditor, except perhaps to see that those returned are required to be in good condition to be used again. The position is simply that the concern is under obligations to purchase at a fair price containers that it constantly needs. If the customer can return them at a higher price than cost, the auditor should require that a reserve be set up against this liability. When the account is kept in quantities the cost of the containers is often included in the selling price of the goods, the return of empties being considered a part payment on the next sale.

Sometimes containers are furnished free with an obligation to return them, but, if there is no penalty for a failure to return, the customer is not likely to be very careful to do so. Therefore the auditor cannot allow all containers in the hands of customers to appear in the inventory, but only such proportions as experience shows are likely to be returned. About the best way to handle such a situation is to ascertain how many containers a concern needs to have for its normal business and to consider this amount as a permanent investment, all new containers bought being charged to operating expense.

Question 7:

In making an audit or investigation for the prospective purchaser of a business to be followed by a report, including a balance-sheet and income and profit and loss statement, would you expect such a report to differ from the report which you would make based upon a balance-sheet audit directed to and made for the president of a corporation? If different, specify fully the points of difference.

Answer to question 7:

Such a report may differ very materially from that based upon an ordinary audit.

The scope of the investigation may be limited by the instructions of the client. He may be capable of judging of the merits of a business in a general way and may instruct the auditor to accept as correct certain portions of the accounts without verifying them and to limit his inquiries to the methods by which the conclusions are reached, such as those in regard to depreciation, the basis of the valuation of inventories, etc. If the scope of the investigation is limited, it should be by written instructions.

The report made to the president covers the result of one year only. That made to a prospective purchaser should cover a series of years, not less than three, preferably as many as ten. These years should not be averaged, but should appear in parallel columns, so that the items can be compared in detail. This is important, as it shows whether the business is steadily increasing, steadily decreasing or is of a fluctuating nature. The percentages of cost of goods and of expenses to sales should be given in detail for each year, in order to show the trend of the business.

It may be that conditions have begun to develop that are not yet apparent to outsiders which will make it at least doubtful whether the business will be as profitable in the future as in the past. Any suspicion of such conditions should be reported to the client, who can make further investigations.

It may be that the years of greatest prosperity are the same as those in which a certain manager was employed. The auditor should endeavor to ascertain whether changes instituted by this manager were responsible for the gain, or whether it was due to his personal supervision. This is information of value to the purchaser if he does not intend to retain the manager. The character of the general management of the business should be reported by the auditor, especially if he can suggest any points in which it can be improved.

Of course, the auditor should exclude from his statement of profits any that are not the result of the normal operations of the business. He should also adjust the statement by years if he finds that it has not been properly done. For instance, bad debts may have been ignored for three or four years and then a large amount may have been charged off at one time. The auditor should distribute such debts over the years as far as he is able.

It is not wise for an auditor to forecast the future of a business in any circumstances, but while it may be merely a little injudicious to estimate the effect of certain proposed changes upon a going business remaining under its old management, it is very foolish of him to prophesy as to the results which may follow a change of management consequent upon the sale of the business. If the new parties expect to put in additional capital, the auditor may show that in the past the business has suffered from lack of ready money by losing discounts or by being obliged to buy in small quantities, leaving it to the purchaser to judge whether or not he can avoid such faults in the future. In other words, the auditor can point out mistakes in the past history, but should not attempt to determine whether they can be guarded against in the future.

When the entire business is to be disposed of the auditor should be much more particular than when only a portion of it is for sale. The reasons for selling are very important. They may be entirely legitimate or may be caused by advance information of something impending that will be disastrous to the business. If there are any indications of approaching calamity to be gained from his scrutiny of the business, it is, of course, necessary to report them to his client at once.

Question 8:

How could a manager, who does not keep the books but is interested in the profits of one department of a business, unduly increase the amount of his compensation? In making an audit where profit-sharing agreements exist, should an audit programme differ from that required where there are no such agreements? If so, why?

Answer to question 8:

A manager who has authority to dictate the way in which the accounts shall be kept can so manipulate the charges and credits as to favor one or more departments at the expense of the others. Among the various methods of distributing the factory overhead there may be one which will impose on the favored department a much smaller burden than would any other plan. He may order this method adopted, although to the unprejudiced auditor it may not seem to be the one best suited to the business as a whole. As this is largely a matter of judgment, the manager cannot be charged with dishonesty. It is assumed that the manager is not actually and intentionally dishonest. If he is, he may manipulate inventories, freight charges and other elements of profit and loss to the advantage of the favored department. But without dishonesty there are many points, about which authorities differ, which allow him to choose those most favorable to his biassed judgment.

In making an audit where a profit-sharing agreement exists, the auditor should carefully examine the distribution of all the expenses among the various departments and should determine as well as he can whether or not they are just and reasonable. It would be better if he were told beforehand merely that the manager was interested in one of the departments, but not informed which one. His findings could not then be said to be prejudiced. It may be that the manager may be so honest that he has not been fair to himself. In any event the auditor must ascertain the facts and report accordingly.

The same suggestions would, of course, apply if several employees received shares of the profits from the departments in which they are employed. If the shares are based on the profits of the business as a whole, an improper distribution of income or expense would not affect the remuneration of the employees. In such a case verification of total profits would be very important; but the auditor is supposed to make as careful a verification of profits as possible in any event. The profit-sharing agreement would be merely an added reason for thoroughness.

Question 9:

(a) Would you refuse to sign an audit certificate if you had been refused access to the minute book of a corporation?

(b) If the answer is "Yes," would you sign the certificate with a qualification?

(c) Mention five items for which you would look in examining a minute book.

(d) If the corporation were a "close" one and practically no minutes were kept, what action would you take and why?

Answer to question 9:

(a) I would refuse to sign an audit certificate except as indicated below. There could be no reason for refusing to allow an auditor to read

the minutes, except that they contained information which would cause him to modify his certificate to the detriment of the company.

(b) If I signed any certificate it would contain a qualifying clause such as "subject to any adjustments or changes that I might have made if I had been able to read the minutes of the company, access to which was refused me." This would be equivalent to saying that my report was apparently correct, but that there were probably one or more important points in which it might be absolutely untrustworthy.

(c) Bonuses to officers to be paid in the immediate future.

Litigation in regard to infringement of patents involving the possible loss of large sums.

Suits for damages or for non-fulfillment of contracts.

Contracts for additions to plant equipment to an extent that the present business might not seem to justify.

Settlement of a claim against the company for a much larger sum than the books show as a liability.

(d) I should request a written statement from the officers that no material facts in regard to the assets and liabilities had been kept from me, and particularly that there were no contingent liabilities that had not been disclosed. I should also inform them that they were incurring serious responsibilities by not keeping proper records.

Question 10:

When plant and deferred asset accounts are increasing, should an auditor attempt to ascertain whether or not production is increasing to the same relative extent? What is the auditor's general duty in regard to (a) capital expenditures and (b) increases in inventories? Answer fully.

Answer to question 10:

As a plant is intended to be the means of producing a certain output, any increase in the plant account should be reflected in a corresponding increase in production. If the one increase does not follow the other, the auditor should investigate to find what is wrong. He may find that the items which caused the increase were not proper charges to plant account at all, but were really for maintenance only.

An increase in deferred assets may be only temporary, owing, perhaps, to an opportunity to make a saving by anticipating future payments. It might not have any connection with the volume of business. The auditor should take into consideration the whole expenditure for each class of assets and determine what effect each would have in relation to increased production.

(a) The general duty of the auditor in regard to capital expenditures is to make sure that the proper distinction has been observed between items affecting capital or income. An examination of vouchers alone will not be sufficient, since the same material may be used either in new work or in repairs and replacements. If there is not a proper system of work tickets to show exactly where all material and labor went, he must satisfy himself, as well as he can, by inspection or by judicious inquiry of foremen and others that the material and labor have produced some-

thing that is a distinct addition to the permanent assets. He should also investigate if he has any reason to believe that items properly chargeable to capital have been charged against income, as is sometimes done by those who wish to be conservative. An understatement of profits is an error, though not nearly as serious as an overstatement.

(b) An auditor should ascertain the reasons for any marked increase in inventories. Possession of a larger amount of raw material than is normally required to be on hand at any one time may be evidence of shrewd buying of goods that have already risen in price or may be expected to rise in a short time. If the material is all serviceable—that is, if the increase is not fictitious—the amount carried is a matter of judgment.

The same thing is true to a large extent of an increase in an inventory of finished product. There may be reasons for expecting a largely increased demand for the goods. Of course, it may be caused by a sudden slump in sales. So long as there are no unsalable goods being carried, no special comment is required, unless the auditor has reason to believe that it is the habit to carry excessive inventories.

Treasury Stock and Surplus

Editor, Students' Department:

Sir: Will you kindly let me know what would be the proper entries to make in the following instances:

When we paid the income tax for the year 1917, it of course was paid this last year, 1918. Should this be charged off in the expense account as taxes this year, or should it be charged off from our surplus account of 1917?

We also have about half of our capital stock subscribed and paid for by the members; the rest we will not sell, as we wish to hold it, wanting no more new members. We can transfer enough of our surplus fund to pay the rest of the authorized capital stock and hold this in the treasury as treasury stock. What would be the proper entry in this case?

J. J. F.

The income tax paid in 1918 was based on and was therefore a deduction from the profits of the year 1917. On December 31, 1917, there should have been set up a reserve for federal tax. The offsetting debit would, of course, have been a charge to profit and loss, as a deduction from profits, not as an operating expense. The result would have been a reduction of surplus at December 31, by the amount of the tax. The surplus being too large, it must be corrected by charging the tax to surplus account, and not to the profit and loss account of 1918. When the tax is not definitely known, as at the end of 1918, an amount large enough to cover what it probably will be should be set up.

The definition of treasury stock is "stock that has been once fully paid for and issued, and that has since been re-acquired by the issuing corporation through purchase or donation." Under this definition the stock referred to would not be treasury stock. It may be fully paid for, but it has not been issued. Waiving that point, however, it is a little difficult to see how the stock can be gotten into the treasury stock account.

Either no entry has yet been made covering the stock not yet subscribed or else the capital stock account shows the full amount of the

authorized capital, and there is a debit account of unissued stock. To put the new stock on the books would necessitate a debit to surplus and a credit to capital stock or to unissued stock. If treasury stock is now charged, the only credit would be to surplus, reversing the original charge and thus nullifying the entry which paid up the stock.

The fact of the matter is that no stock can be paid up out of surplus, except as a division of profits, that is, dividend. The only way to get the stock into treasury stock account would be to declare a stock dividend of 100 per cent. of the outstanding stock, on condition that each stockholder would at once donate his dividend stock back to the company. This gift would be a credit to surplus equal to the debit of the dividend, and the balance of the surplus account would be the same as it was before. This must be so because the only debits to surplus must be either losses or permanent dividends. This issue of stock is neither of these.

If capital stock account has been credited only with the stock already issued, it will answer every purpose if unissued stock is charged and capital stock credited. This will bring the capital stock account to the full amount authorized, but the unissued stock will appear as such and not as treasury stock. There is no material difference unless it is proposed to sell it at a discount. In some states treasury stock may be sold at a discount, while unissued original stock cannot be, except with a liability for the discount on the part of the purchaser. As this concern has a surplus equal to the unissued stock, there would not seem to be much risk in this case.

Interest on Unpaid Cumulative Dividends

Editor, Students' Department:

Sir: I shall appreciate very much your opinion on the following problem:

The preferred stock certificates of a certain corporation include the following printed matter:

"The preferred stock is entitled in preference to the common stock to cumulative dividends at the rate of 7 per cent. yearly, with interest on any deficiency, and on liquidation or dissolution is entitled to payment in full of its par value, plus accumulated dividends unpaid, with interest."

(a) Is not this provision for "interest on any deficiency" an unusual one?

(b) Does this clause conflict with the fact that cumulative dividends on preferred stock are not a liability until declared, and therefore interest should not accrue until the date payable has passed, or does this clause, in your opinion, refer only to dividends after being declared and made payable at a certain date? On the latter basis, any interest accruing from the date when the dividend was made payable would be charged to interest account as interest on a current account payable.

(c) If the clause is to be construed to mean that interest accumulates from the date when the dividend accrues, without reference to the date when it is made payable after being declared, would the interest be a proper charge against the interest account or would it be more proper to charge the amount directly to surplus along with the amount of the dividend (after being declared), on the principle that it was not interest on accounts payable, but rather affected only the equities of the common and preferred stockholders.

In the case of this corporation, the past eight preferred stock dividends have accumulated but have not been declared.

Trusting to obtain your opinion through your columns in THE JOURNAL, I am

Yours truly,

C. K.

(a) The provision for interest on unpaid preferred dividends from date of delinquency is very unusual. As the clause fixing the dividends does not state that they are to be paid other than "at the rate of 7% yearly," the dividends would not be delinquent until after the end of each year.

(b) Although these dividends are not an active liability that can be expressed on the books, they are a contingent liability that must be taken into consideration in any statement of the financial condition of the company. If a surplus exists, any balance-sheet submitted to creditors or stockholders should contain a note stating that this surplus is subject to unpaid preferred dividends. If no surplus exists, the contingent liability is of no interest to creditors, since profits must be made and through them funds provided with which to pay the dividends before they can become active liabilities. They are of interest to the preferred and common stockholders, as showing priority of claim on the part of the preferred to any present or future profits.

As these dividends are a liability, although only a deferred or contingent one, there is no reason why they should not be made to bear interest, if they have been earned but not yet declared.

(c) The interest would be a proper charge against the interest account, if the dividends were earned and had not been declared because the directors needed the money in the business. The directors are virtually making a forced loan from the stockholders. If the dividends are not earned there ought not to be any interest on them, but since the contract seems to call for it, the interest when paid should be charged direct to surplus as an extraneous and not a normal expense.

DECEPTIVE AVERAGING, AGAIN

Editor, Students' Department:

SIR: A corporation having a string of large warehouses has a system of accounting for purchases and sales, as follows:

Material purchased is charged to the warehouse at cost price and sales are made on the basis of 10% gross profit. As additional purchases are made, the amount remaining in stock is added to the new purchase and an average cost is arrived at after each new purchase. This average cost is used as a basis for computing the sales until another purchase is made, when the average again may change.

At the end of the year an inventory is taken of the goods remaining on hand and priced at the average prevailing at the date of the inventory. Should not the difference between the inventory at the first of the year plus the charges to the merchandise account and the inventory at the last of the year equal the profit on sales made—assuming that the stock has turned over at least once, and that the purchases during the year have been at prices no less than the value of the inventory at the first of the year, and presumably at higher prices? Assuming that this differ-

ence is the true profit, should it not equal one-eleventh of the total sales made during the year, if 10% is the rate used to add to material sold?

I am very much interested in this problem and would appreciate a reply.

Yours very truly,

R. G. H.

There is nothing so deceptive as averages, and more mistakes are made by business men in reasoning about them than in any other way.

There is one invariable rule that is little understood. An average price can be relied on only when either quantities or prices are the same. Of course where the price is the same all the way through that is also the average price. But when the quantities and the prices both vary, averaging the prices will not work. For example:

10,000	@	$1.00	is	$10,000
10,000	@	1.05	is	10,500
10,000	@	1.10	is	11,000
10,000	@	1.25	is	12,500
40,000	@	$1.10	is	$44,000

In this case the prices add up 4.40 for 40,000 or an average of 1.10, which is correct, because the quantities are the same. But if

10,000	@	$1.00	is	$10,000
20,000	@	1.05	is	21,000
30,000	@	1.10	is	33,000
40,000	@	1.25	is	50,000
100,000	@	1.14	is	$114,000

Although the individual prices are the same as before, the average is not the same, because the quantities vary.

In the case in point the basis of sales constantly varies because the quantity of goods on hand each month added to the purchase of the month gives a constantly varying amount on which the sales are calculated.

The reason for this will appear if the two tables given above are analyzed. In the first table the first item is 10,000 times 10 cents below the average price of $1.10, and the second item is 10,000 times 5 cents below, while the last item is 10,000 times 15 cents above. The amounts of $1,000 and $500 below cancel the $1,500 above. In the second table the amounts of $1,000 and $1,000 for the two items below the average do not offset 40,000 @ 15 cents or $6,000 above by $4,000. This adds $4,000 to the total of the 100,000 quantity or 4 cents to the average price.

No-Par-Value Stock and Convertible Notes

Editor, Students' Department:

Sir: There are a few questions that I would like to ask regarding a certain company with which this office is familiar, and I submit the following figures with questions:

In the fall of 1917 the company was re-organized with the following capitalization: five year 6% notes, $6,000,000, and 250,000 shares common stock of no par value of which 190,000 shares were issued immediately and 60,000 shares were reserved for conversion of the notes.

In the 1918 annual report one of the asset items is

Investments (subsidiary companies, etc.) (including $1,936,000 of the company's five-year 6% convertible notes)	$4,418,129.84

and on the liability side are, among other items, the following:

Notes	$5,265,500.00
Capital	15,934,500.00

During the year the company converted $734,500 of the company's notes ($1,000 par value of notes for ten shares of stock), and purchased on the open market $1,936,000 of the notes.

I judge from the asset item that the purchased notes are not yet cancelled, so I should subtract this item from the liability "notes" item to arrive at the actual amount of notes outstanding; but I do not understand how with a "no-par-value" stock the liability "capital" item is entered as it is. At what price is such capital stock entered? In the report for 1917 the capital item was shown as $15,200,000.00, thus showing the issuance of $734,500 stock for the notes converted in 1918 figures. Will you kindly explain to me how the "no-par-value" capital is handled in a case of this kind?

Sincerely yours,

C. M. B.

The proper way to handle stock with no par value is to treat it very much like the capital of a partnership as far as its book valuation is concerned. Capital stock should be credited with whatever is paid in the same as partners' capitals are credited with their contributions.

In this case the original 190,000 shares issued were evidently paid for at 80.

The question then comes up as to the 7,345 shares issued in conversion of the notes. One view is that the original sale at 80 has established that figure as the book value and that the issue of other stock at 100 means that 7,345 shares whose established par was 80 were sold at 25 per cent. above par. Taking this view, capital stock would be credited with $587,600 and contributed surplus, or simply surplus, with $146,900.

The other view is that the stock is to be valued at the amount paid for it, in which case the capital stock would be as shown, $15,934,500. In any event the number of shares outstanding should be given as 197,345, so that each stockholder can know the book value of his holdings.

Where there is only one class of stock it does not make much difference which view is adopted, since the book value of each share is found by dividing the sum of the capital account and the surplus account by the number of shares outstanding, whether the surplus is paid in or earned. It is important only for the purpose of fixing the amount of the capital stock which cannot be impaired by payment of dividends.

Unless the notes purchased are of such a character that they may be re-issued, it would seem as if they ought to be charged off. If there is a chance that they may be re-issued they should be carried as notes in treasury and should be deducted from the credit balance of notes in the balance-sheet. However, long time notes should not be called simply "notes"; their character should be specified. They are in no sense investments, as that term implies outside securities available for the payment of creditors.

Herbert E. Smith and J. P. Robertson, formerly of Smith, Robertson & Moorhouse, announce the formation of a partnership under the name of Smith, Robertson & Co. The office continues in the Henry building, Seattle, Washington.

J. J. Jerome and F. M. Shaefer announce the formation of a partnership under the firm name of Jerome-Shaefer Company with offices at 302 Capital National Bank building, Lansing, Michigan.

G. Charter Harrison and Eric A. Camman announce the dissolution of partnership. G. Charter Harrison will continue in practice under his own name at 31 Nassau street, New York.

H. M. Webster and A. A. Webster announce the resumption of practice under the firm name of H. M. Webster & Co. with offices at 140 Nassau street, New York.

Callihan, Bliss & Co. announce the opening of offices in the Bergner building, Harrisburg, Pennsylvania.

Edwin H. Wagner announces the opening of offices at 1506 Arcade building, St. Louis, Missouri.

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Report of the President*

In presenting the report of your president there is prominently in mind the words of a predecessor who was permanent chairman of the first congress of accountants ever held in this country. Listen:

"I feel whenever I meet my professional brethren that we ought to exchange congratulations upon our membership in a profession, so young, so energetic, so free from traditions that stifle, while yet maintaining well defined principles of ethics, and most of all so full of possibility for the employment of every faculty of mind and heart in noble service in the field of life. . . . To me the crowning glory of our profession is that it must ever stand for the highest ideals in the life of the individual and for the slow but sure evolution of society into a state where honor and honesty shall not be mere abstractions."

We may keep profitably these thoughts, so beautifully and zealously stated by Mr. Sterrett, before us throughout our meeting, and carry them with us to our homes and business circles with profit to our profession and to ourselves.

The duties of the presidency have not been found irksome, although they were undertaken with feelings of sincere apprehension of personal inability to meet the requirements acceptably and worthily.

This has been due largely to the constant and wise support of an executive committee whose superior it would be difficult to obtain; to the faithful assistance of our secretary and our treasurer and to the uniform willingness of our members, with but slight exception, to serve your interests as committeemen.

* Presented at the annual meeting of the American Institute of Accountants, Cincinnati, Ohio, September 16, 1919.

In the course of the year it has been our privilege to address the state societies of Massachusetts, New York, Pennsylvania, Virginia, Delaware and Maryland and the Pittsburgh Institute of Accountants.

We were obliged to forego the pleasure of a trip to Oklahoma because of serious conflict with other engagements.

The principle topic of our addresses has been the individual responsibility of each member of the institute—its existence—its importance—a plea for its acceptance—and the splendid results thereof indicated.

I rejoice in an incident which indicates that one, at least, has been favorably impressed. A member has written asking to be put at work on any of the committees and promising faithful service. And this incident leads me to emphasize the importance of attendance of committee members at the meetings of their committees. The attendance of the executive committee for ten meetings has been somewhat remarkable. We have eight in all, including the secretary, who are expected to be present, and three of these have been absent but twice, two but once, and two not at all; and in every case of absence there have been valid excuses and sincere regrets expressed. In another important committee we frequently have been troubled to secure a quorum.

The beginning of the year found us deep in the horrible struggle of war—the greatest this world has ever known—probably the most barbarous ever known. We have had, all of us, our part in it, with varying degrees of activity. Our members, many of them, have been devoting their whole time working in the service of our country, some in a military, some in a civil capacity, and the future of all, a year ago, was uncertain and critical.

Thank God, we have been victorious in war; and there seems to be a treaty of peace in the making.

We are entering upon a period of readjustments and reorganizations. There never have been placed upon the public accountant greater responsibilities, nor so varied and in such numbers, as have been born of this war, and I believe our good reputation has been so advanced and so extensively recognized that we may consistently look forward to a period of even greater and more important work in the future.

Probably there were never before so many and such strong temptations besetting the citizens of this country in their determination of net income and of balance-sheets—temptations to twist and to turn, to magnify and to minify, in attempting to decrease the amount of indebtedness to the government. Professed ignorance of the law's meaning and professed inability to understand the forms for returns prepared by government have furnished a multitude with excuses for doubtful and wrongful returns. Comparisons by government examiners frequently require a demand for explanations, and then there comes an increased dependence upon the public accountant to straighten things out. Not infrequently, this proper care results in great saving to the taxpayer who previously had been depending only upon his own office staff.

It is unquestionably the fact that accountants are receiving in many cases too small compensation for their services to the public, and in the extra preparation required for tax work it is only just that their charges should be increased from what they have been heretofore; but there has been noticed a disposition by some accountants, especially some so-called "tax experts," whose ideals and ethics are not in keeping with those of the profession, to adopt a practice in regard to fees which is open to criticism.

Our minds must be set against contingent fees, so-called, as unprofessional and reprehensible.

We repeat the expressed wish of President Davies, uttered last year, that every reputable and qualified public accountant in the country should be enrolled as a member of the institute.

It has not been the intention of the board of examiners nor of the institute that such accountants should be obliged always to pass a technical written examination. In many cases an oral one may be substituted, which while being so conducted as to prevent the passing of unqualified men, presents no real difficulties to the experienced practitioner. The following is the rule governing such cases:

> The board of examiners in its discretion may allow any candidate who has had five years' practice on his own account or seven years of experience in public accounting, who is thirty years of age or has passed a written examination conducted by a recognized accounting body, to take an oral instead of a written

examination in one or more subjects. The determination of who shall be considered as practising public accountants shall be made in all cases by the board of examiners.

We believe there are many practising accountants outside our membership who can be induced to become members when they are made to understand the great advantage which will thereby accrue to them.

There also are instructors in accounting who are qualified for membership with us and should be members with us. One of the declared objects of our institute is to develop and improve education—and another is to unite the accountancy profession of the United States.

If there exists uncertainty in the mind of anyone regarding his qualifications for membership a letter to the board of examiners stating his condition will receive prompt and intelligent response.

Let no one imagine the institute membership to be a body of too great exclusiveness. I trust we always shall promote and maintain high professional and moral standards; but there is not one of us who will not gladly welcome the addition to our membership of qualified men, who will not make a dignified and honorable effort to secure such as members.

The special committee on increased membership doubtless will have soon a most interesting and valuable report for your consideration.

One of the most important matters before you is the subject of relationship of the various state societies and of our members in various quarters, classified locally, with the national body. This subject is not new. It must be wisely determined so as to keep alive constantly in various localities all the professed objects of our national institute.

Mr. Montgomery's committee will report upon this subject.

The Chamber of Commerce of the United States of America requested the institute to nominate two members to serve on a committee on cost accounting. This invitation was accepted by the council on April 14th and the executive committee approved the nomination of Edward E. Gore, of Chicago, and David L. Grey, of St. Louis, to act for the institute on the committee.

On invitation of the Chamber of Commerce of the United States we have appointed the members of the committee on

federal legislation, consisting of Adam A. Ross, Harvey S. Chase and John B. Niven, to serve as a special committee on a budgetary system in the United States.

The familiar activities of the institute will be reported upon by the officers and by the various chairmen of committees. The endowment fund, that splendid achievement of those who felt and continue to feel the personal responsibility upon them; the statistical library and the work of your librarians; THE JOURNAL OF ACCOUNTANCY, our well managed, national professional mouthpiece; the board of examiners which, under the guiding hand of Teele, has done well an immense amount of work; and all the others, too, will be subjects of reports as usual.

Mention should be made on behalf of correct accounting principles of *Standard Methods for Preparing Balance-sheet Statements* prepared by the institute and issued by the federal reserve board.

Among our losses by death, none has been felt more strongly in the active work of the institute than the passing from us of Bertram D. Kribben. Mr. Kribben's membership in the board of examiners was filled by the selection of Ernest Reckitt.

In closing, I would repeat the words quoted in beginning this report:

"To me the crowning glory of our profession is that it must ever stand for the highest ideals in the life of the individual and for the slow but sure evolution of society into a state where honor and honesty shall not be mere abstractions."

WALDRON H. RAND, *President.*

Capital Stock of No Par Value*

See also Pg 385

By Frederick H. Hurdman

For many years it has been recognized by the business world that there were evils inherent in the custom of issuing capital stock with an arbitrary dollar value on each certificate. For this reason such prominent attorneys as Francis Lynde Stetson, Louis Marshall, Victor Morawetz and the late Edward M. Shepard, of the New York bar, advocated the proposition of authorizing corporations to issue stock without par value.

Mr. Shepard, in an address which he made before the Illinois Bar Association in 1907, among many other arguments advanced by him in favor of this form of capital stock, said that it would have a tendency to direct attention to real instead of fictitious values; that it would check inflation of assets in order that sufficient debits might appear on the statements of corporations to offset the nominal value arbitrarily placed upon the certificates of stock issued; and that the unsuspecting investor would not be misled into thinking that because the symbol $100 appeared on a certificate of stock it must have a real value at or near that amount. Furthermore, he could not find any real advantage in assigning a nominal or fictitious value to the certificate.

His definition of "overcapitalization" was not that a company had too much capital, but the very contrary. The distinction is well made between "capital" and "capitalization." It is the excess of nominal capital over real capital which is the offense.

The modern corporation is nothing more nor less than a restricted form of partnership. Such differences as exist lie in the fact that the corporation may have a life not dependent upon its membership; the members may transfer their rights and liabilities; and there is a limit of liability for debts.

According to Mr. Shepard the origin of the legal requirement that the articles or certificate of incorporation shall state a company's capitalization seems to have been in the original identity between nominal capitalization and actual capital or net assets.

When the English crown issued or the English parliament authorized corporate charters, there was a jealousy of the money

*A paper read at the annual meeting of the American Institute of Accountants, Cincinnati, Ohio, September 16, 1919.

power of the corporation. A charter frequently, as in the time of Queen Elizabeth, gave or sought to give a monopoly of some kind to a corporation. The power of the corporation was dreaded. It was at least a matter of privilege or favor. It was, therefore, to be limited to such and such an amount of wealth. In our time, and certainly for our country, this purpose has been practically lost. We have the Standard Oil Company of New Jersey capitalized at $100,000,000 with actual capital five times that amount.

In January, 1892, a report was made to the New York State Bar Association by a committee consisting of Francis Lynde Stetson, D. S. Remsen and Robert T. Turner, suggesting a law for a distinct class of business corporations whereby they might issue their capital stock without money denomination, merely representing proportional shares in that enterprise.

The general mining laws of Prussia enacted in 1865 provided for companies without denomination of shares.

Louis Marshall gave as his opinion recently:

> Eventually it will not only become a part of the jurisprudence of most of the states of the union, but in twenty years from now few corporations will be organized on any other principle.
>
> I believe it to be the only reasonable method of representing stock ownership in a corporation. The old method of placing an arbitrary dollar mark on a certificate of incorporation led to stock-watering, the creation of false values, and proved to be an easy medium for carrying out fraudulent schemes and practices. Under the new system every share of stock represents an aliquot interest in the corporate assets. Its value is dependent upon the actual value of the assets, and not upon any fictitious or imaginary value. That is the honest way of issuing stock. In the past a corporation which acquired undeveloped mining property issued shares of stock by the thousands and arbitrarily fixed the value of the shares at amounts which varied from $1 to $100 each. Those corporations had capital stock to the amount of $1,000,000 or $100,000,000, which had merely a potential value; but speculation was carried on with the idea that the par value had some relation to actual value. It is unnecessary for me to say that such practices are inimical to the public interest. It has now become the usual thing for corporations which are honestly managed to issue their stock without par value. The experiment has proven most satisfactory, and bankers who at first were skeptical are now found to favor the issuance of stock on this new and reasonable theory.

Furthermore, the commendation of the railroad securities commission, whose report was transmitted to congress in 1911, brought the proposition prominently before the entire country. The New York State Bar Association early prepared an amendment to the New York corporation law which was finally enacted in 1912. In that report the commissioners said:

We do not believe that the retention of the hundred dollar mark, or any other dollar mark, upon the face of the share of stock is of essential importance. We are ready to recommend that the law should encourage the creation of companies whose shares have no par value and permit existing companies to change their stock into shares without par value whenever their convenience requires it. After such conversion any new shares could be sold at such price as was deemed desirable by the board of directors, with the requirement of publicity as to the proceeds of the sale of such shares and as to the disposition thereof; giving to the old shareholders, except in some cases of reorganization or consolidation, prior rights to subscribe pro rata, if they so desired, in proportion to the amount of their holdings.

As between the two alternatives of permitting the issue of stock below par or authorizing the creation of shares without par value, the latter seems to this commission the preferable one. It is true that it will be less easy to introduce than the other because it is less in accord with existing business habits and usages; but it has the cardinal merit of accuracy. It makes no claims that the share thus issued is anything more than a participation certificate.

The objections to the creation of shares without par value are two in number: first, that their issue will permit inflation, by making it easy to create an excessive number of shares; and, second, that it will produce a division of roads into two classes, those whose shares have a par value and those whose shares have not. The second of these objections does not appear to be a very serious one. There are listed on the stock exchanges today, side by side with one another, shares of the par value of one hundred dollars, shares of the par value of fifty dollars, shares with very much smaller par value, and a few, like the Great Northern Ore certificates, with no par value at all. The share sells in each case simply for what the public supposes it to be worth as a share. The danger of inflation deserves more serious consideration. We believe, however, that it is more apparent than real, because shareholders will be jealous of permitting other shareholders to acquire shares in the association except at full market value, and will not permit the issue of such shares to themselves at prices so low as seriously to impair the market or other value of their holdings. Shares either with or without par value, and whether sold at par or above par or below it, should, except in cases of consolidation and reorganization, be offered in the first instance to existing shareholders pro rata.

The issue of stock without par value offers special facilities for consolidation and reorganization.

Where two roads have consolidated, whose shares have different market values, it has been the custom to equalize the difference by the issue of extra shares of the consolidated company to the owners of the higher priced stock. This practice has always tended to produce increase of capital issues, and may readily cause the new stock to be issued for a consideration less than its par value. The only alternative was to scale down some of the old stocks; and this often involved serious difficulties, both of business policy and of law. By the simple expedient of omitting the dollar mark from the new shares, the number can be adjusted to the demands of financial convenience, without danger of misrepresentation or suspicion of unfairness to anyone.

In the case of reorganization, the advantage of shares without par value is even more obvious. It is here that the necessity and justice of getting money from stockholders is greatest. It is here that the impossibility of getting them to pay par for new shares is most conspicuous. We believe that in such cases the public interest would be subserved and the speedy rehabilitation of the roads promoted by requiring the conversion of the common stock and encouraging the conversion of the pre-

ferred stock into shares without par value; the certificates simply indicating the proportionate or preferential claims of the holders upon assets and upon such profits as might from time to time be earned.

All of these considerations seem to apply with equal force to the securities of railroads under state incorporations, and we believe the laws of the several states could with advantage be modified so as to provide for the issuance of stock without par value.

Since the original bill, which was passed by the legislature of the state of New York in 1912, nine other states have enacted laws providing for the issuance of stock of nominal or no par value, so that today we find these statutes in California, Delaware, Illinois, Ohio, Pennsylvania, Maine, Maryland, New Hampshire, New York and Virginia.

A study of the laws of these various states discloses the desirability of a movement for uniformity in corporate legislation. In the table (on pages 254 and 255) there is presented a brief synopsis of the important elements entering into these laws. This is not meant to be authoritative, as in many instances the entire act should be considered in order to understand fully the limitations set down.

The New York state law contemplates a corporation whose creditors are advised at the formation of the company that the actual paid-in capital of the company is at least a given amount. The capital stock without par value may be issued at any value within the methods provided, subject only to the requirement that the actual paid-in capital shall equal in amount the stated capital before the corporation shall begin to carry on business or shall incur any debts.

The corporation may sell its authorized shares from time to time for such consideration as may be prescribed in the certificate of incorporation or for such consideration as shall be the fair market value of such shares—and in the absence of fraud in the transaction, the judgment of the board of directors as to such value shall be conclusive—or for such consideration as shall be consented to by the holders of two-thirds of each class of shares then outstanding.

A peculiar feature of the Virginia law is that it provides that "the maximum amount of the authorized capital stock of the corporation shall be stated in dollars in the application for a charter." As the number of shares must also be stated it would appear that a nominal value is thus established.

It is interesting to note that in the New York law, and that of other states modeled after it, not only is there an attempt to provide that creditors shall have due notice of the minimum capital invested before the privilege of doing business is granted to the corporation, but the law has further restricted the reduction of the actual capital of the business to an amount less than the stated capital stock unless it be determined by the proper authorities that the reduced amount of capital is sufficient for the purpose of the business and is in excess of the ascertained debts and liabilities. The statute of Ohio, however, provides that preferred stock may not be redeemed, purchased or retired if thereby the property and assets of the corporation will be reduced below the amount of the outstanding liabilities, but in providing for the reduction of common stock the law states that the reduced amount of capital must be in excess of its debts and liabilities.

Whether the framers of the law really meant, in both cases, that the assets should still exceed the liabilities or whether it was the intention in reducing capital to leave $2 of assets for every $1 of liabilities is not clear; but at any rate in the New York law and that of several other states it is specifically stated that the capital remaining shall be in excess of the debts and liabilities. It will be noted that the word "capital" in the statute is used exclusively in the sense of stockholders' equity.

It is further provided by the laws of most of the states that no dividend shall be declared which will reduce the amount of the capital below the stated capital, and the directors are made liable to the corporation or to its creditors for any dividend paid in violation of this principle. The Ohio law, in addition to forbidding the dividend which will reduce the capital below the amount of stated capital, also provides that dividends shall not be paid from any fund received from the sale or disposition of its capital stock.

The New York law in referring to methods of taxation provides that the rate of dividend shall be computed by dividing the total amount of dividends which had been paid during the year by the amount of the net assets of the corporation on the first day of the year. This departure from the custom of considering the dividend as being based on originally paid-in capital

is, of course, in line with the whole theory of the no-par-value stock, that one share of stock represents one aliquot part of the excess value of assets over liabilities.

A brief summary of the results achieved in the issuance of stock without par value, as provided for in the New York law, follows:

1—Working capital may be provided without the necessity of inflating the book value of assets.

2—Stock may be issued for its real value without reference to any nominal value.

3—Stockholders are assured that stock issued is "fully paid-up."

4—Potential creditors are notified of the minimum capital actually paid in and are protected against any depletion of the capital of the company below such amount.

5—The credit of the corporation is based upon sounder and more substantial valuation of assets and in consequence will probably receive greater confidence on the part of investors and creditors than would be accorded to the same corporation without such assurance.

Though these advantages seem clearly to inhere in the case of corporations organized under this statute, it would, however, seem that the statute does not forbid the depletion of the actual capital, whether invested or earned, except when such depletion will reduce the capital below that stated in the certificate of incorporation or subsequent notice of addition or deduction. In other words, in so far as the New York statute is concerned it would appear that dividends may be paid out of capital if that capital exceeds the amount of stated capital. The law of Ohio specifically forbids the payment of dividends from any fund received from the sale or disposition of capital stock, and Pennsylvania and Delaware forbid the payment of dividends out of capital or out of anything except net profits or surplus earnings.

A study of the various statutes demonstrates that Pennsylvania is the only state which authorizes the issuance of stock preferred as to principal without par value, but several other states appear to authorize the issuance of stock preferred as to dividends, the New York statute being worded to authorize the

issuance of shares of stock of such corporation other than preferred stock having preference as to principal without any nominal or par value.

California and Maine have similar provision, but Delaware and Maryland specifically except stock preferred as to dividends as well as stock preferred as to distributive shares of assets or subject to redemption at a fixed price. The Ohio law provides only for the issuance of common stock without par value and further provides that preferred stock with par value shall not, in number, be more than two-thirds of the total number of all shares. Illinois does not specify exceptions.

A rather interesting decision has just been handed down by the supreme court of Kansas in the case of the North American Petroleum Company, a Delaware corporation, organized under the no-par-value statute of that state, which sought to do business in the state of Kansas, which does not have a no-par-value statute. The state authorities attempted to exclude this company on the ground that it was not such a corporation as is contemplated by the laws of Kansas. The court in its findings advanced the following in support of its contention that the company should be admitted to do business:

> The problem of determining the solvency and bona fide capitalization of the plaintiff presents no unusual difficulty. The fact that the shares of its stock have no nominal par value is of little consequence. Any prudent charter board, in determining whether a foreign corporation is worthy of admission to do business in Kansas, would attach little importance to the nominal value of its shares of stock, even if they have a nominal value. As in all other cases, the charter board should concern itself earnestly to ascertain the genuine capital—those assets permanently devoted to the corporate business as a basis for its business credit, and upon which the hope of profit is rationally founded.
>
> The "lawfully issued capital" and the "capital stock" of such corporations are the assets that it devotes to the prosecution of its business. When the value of these assets is ascertained, the fee, required to be paid by law, can be based on that portion of the assets which the corporation proposes to "invest and use in the exercise and enjoyment of its corporate privileges within this state."
>
> The defendants contend that the plaintiff is not such an organization as is called a corporation in the constitution and laws of this state. The answer to this contention is that corporations without capital stock and without shares of stock are not new; they are as old as corporations themselves, and have existed in England and in this country for many years; our constitution recognizes them, and we have laws for their control and government.

In recording stock of no par value on the books and setting up values in the statements of assets and liabilities, it does not

seem that any difficulties are presented. The capital account should reflect the value at which the stock was issued—whether for cash, property or services. The only other account representing a measure of value in the outstanding stock, outside of certain reserve accounts, would be the surplus account. In my opinion this account should at all times represent undistributed net earnings of the corporation.

Inasmuch as the capital account will not generally reflect on its face the number of shares outstanding it will be necessary to show in the capital account itself the shares issued. It does not become necessary, as in the case of stock with par value, to carry any portion of the proceeds received from its sale to a paid-in-surplus account. Furthermore, the fact that stock may be issued at varying values for each share has no significance other than to raise or lower the unit or share value for every other share outstanding. Each share represents an aliquot part of the entire capital, other than that portion which may be allocated to one class of stock by virtue of preference.

The number of shares authorized should be noted on the capital stock account. A separate account is, of course, unnecessary to record this fact.

It is probable that very few cases will arise involving donated treasury stock, as that is one of the evil practices this form of legislation was designed to prevent. No reasonable object would be attained by issuing stock of no par value at a nominal value and then donating a portion of that issued stock back into the treasury, presumably for sale to provide working capital. The incorporators would undoubtedly retain the required number of shares for this purpose at the time of incorporation. In the event of such a contingency arising, however, I would suggest that the number of donated shares be carried in treasury stock account without any money value. The number of shares indicated by this account would then be deducted from the issued shares shown in the capital account, in order to show on the statement the actual number of shares outstanding in the hands of the public, which is the essential fact.

When stock of this description is purchased by the company and placed in the treasury, it should be recorded in treasury stock account at its purchase price and shown on the statement

SYNOPSIS OF ESSENTIAL FEATURE

State	Year enacted	Corporations excluded	Amount of capital necessar to commence business
New York	1912	Moneyed corporation or corporations under jurisdiction of any public service commission.	Minimum $500 Par value of authorized pre ferred and $5 or some multi ple thereof for each share o no par value stock authorize to be issued
Maryland	1916	Moneyed or safe deposit corporation	No provision
California	1917	None	Par value if any of preferre and $1 or some multipl thereof of all other share authorized — preferred an common
Delaware	1917	None	No provision
Maine	1917	Banking, insurance or corporations under jurisdiction of public utilities commission	Minimum $1,000 Preferred $5 or some multi ple thereof but not mor than $100 and $5 or som multiple thereof for eacl share no par value stock
Virginia	1918	Moneyed corporation	No definite provision excep minimum as fixed in certifi cate of incorporation
Illinois	1919	Banking, insurance, real estate, brokerage, the operation of railroads or the business of lending money	At least one-half value o stock with par value and no less than $5 per share fo stock no par value, but no less than a total aggregate o $1,000
Pennsylvania	1919	Building and loan, banking and insurance companies	Number of shares with an without par value, and amoun of capital to begin busines
New Hampshire	1919	Banking, insurance or railroads	No provision
Ohio	1919	Same as New York	Same as New York

IN VARIOUS NO-PAR-VALUE STATUTES

Consideration for issuance	Basis of taxation	Classes of stock which may be issued without par value
Consideration prescribed in certificate of incorporation or fair market value, in judgment of board of directors or such consideration as consented to by two-thirds of each class of shares outstanding	Organization tax 5 cents for each share authorized, 12 cents for each share on sales or transfers	Other than preferred stock having a preference as to principal
Consideration to be fixed by board of directors but if stock already outstanding confirmation by two-thirds of holders of each class is necessary	Presumed to be of the par value of $100 for bonus and franchise tax	Other than stock preferred as to dividends which is subject to redemption or stock preferred as to its distributive share of the assets of the corporation
Consideration prescribed in articles of incorporation	Amount stated in certificate of incorporation, each share an aliquot part of entire capital subject to the amount or par value of preferred shares	Other than preferred stock having a preference as to principal
Any amount stated in certificate of incorporation or determined upon by board of directors	Presumed to be of the par value of $100	Other than stock preferred as to dividends or preferred as to its distributive share of assets or subject to redemption at a fixed price
As provided in certificate of incorporation or as fixed by board of directors if authorized in such certificate. If certificate of incorporation does not authorize directors, then by consent of two-thirds of holders of each class of stock	Presumed to be of the par value of $100	Other than preferred stock having a preference as to principal
As determined by corporation and according to statement filed with and approved by state corporation commission		Other than preferred stock
As provided in certificate of incorporation or as determined by the board of directors, not less than $5 per share	Presumed to be of the par value of $100	Class of stock not specified. Each certificate shall have stamped thereon when issued, the amount actually received by corporation for such stock, either in cash, property, services rendered or expenses incurred
Consideration prescribed in certificate of incorporation, by stockholders or by directors acting under authority of stockholders	Presumed to be of the par value of $100	Preferred stock of any or all classes or common stock of any class or both preferred and common stock, preference to be named in certificate. Preference rights, limitations and restrictions may be stated in dollars and cents per share
Consideration prescribed in certificate of incorporation or authorized by two-thirds vote of stock outstanding	Presumed to be of the par value of $50	Common or preferred
At time of opening books of subscription for such consideration as may be decided upon by incorporators and thereafter fair market value or as agreed to by a majority of the outstanding common stockholders		Shares of common stock

as a deduction from capital account at the amount paid therefor. The number of treasury shares would also be deducted from the total shares outstanding.

In presenting the capital account in the corporation statements the important thing is to show the number of shares issued and outstanding, with the value of these shares as reflected by the books or the statements in question.

In examining the published reports of certain companies issuing stock with no par value it was noted in a few instances that an attempt was made to show the amount of capital issued against various properties included in the assets of the corporation. This practice would not have been followed in the case of stock issued, say, with par value of $100, and I can see no good reason for stating it in that manner where the stock issued has no nominal or par value. As each share of stock without par value represents an equal portion of the capital, there cannot be any great advantage in setting up the capital account in this way.

The fact that certain states provide in their statutes for a stated capital does not mean that such stated capital must be set out separately on the books of the corporation or its published statements. It does signify, however, that the directors may not incur debts until such stated capital is paid in. It may be good practice, however, to indicate by a note or indention on the balance-sheet the amount of the stated capital, but no good reason exists for separating the actual capital paid in into two or more divisions.

The following arrangement for the balance-sheet is suggested:

Capital (declared $600,000)		
7% cumulative convertible preferred stock, 5,000 shares of $100 each	$500,000.00	
Balance represented by 9,875 shares of common stock without par value	764,210.87	
Total paid-in capital	$1,264,210.87	
Earned surplus	1,362,984.75	
Total capital		$2,627,195.62

It would appear that an unusual opportunity presents itself to us to familiarize ourselves with the advantages and workings of this law, with a view to recommending whenever possible, in the formation of new enterprises, that stock be issued without par value. Anything that tends to get nearer the facts should appeal to the imagination of and be encouraged by the accountant.

Consolidated Accounts*

By George R. Webster

The need for consolidated accounts practically started with the era of the holding company, although there were, of course, prior to that time many corporations which had formed subsidiary companies in order to comply with the requirements of state laws, and for other reasons. Probably the first important consolidated accounts to be published were those of the United States Steel Corporation in 1902.

The accounts of a corporation should be prepared so that the auditor can certify that the balance-sheet represents the true financial position of the company, and that the profit and loss account is a fair statement of the result of the company's operations. It has long been recognized by accountants that in the case of corporations with subsidiary companies these two conditions can only be shown by the preparation of consolidated accounts. If bankers had insisted on the preparation of such accounts they would probably have avoided several unpleasant experiences.

If advances are made by a holding company to a subsidiary company or if the subsidiary company borrows money or incurs outside liabilities these liabilities of the subsidiary company may be represented on its books by current assets, capital expenditure or even by losses or by a combination of these items, and it is only by consolidation that the true financial position of the companies can be shown. Cases have been known where the current liabilities of the holding company were almost negligible but where consolidated accounts showed current liabilities largely in excess of current assets.

It is also possible for holding companies to take into their profit and loss accounts dividends from such subsidiary companies as are making profits and to make no provision for losses made by other subsidiary companies. No accountant should, of course, certify such a statement without a qualification, but even

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if losses are provided for and the profit and loss account is correctly stated, the balance-sheet of the holding company does not show the true financial position of the holding company and its subsidiary companies. In several notorious cases balance-sheets of holding companies have been issued which did not show any contingent liability for endorsement of notes of subsidiary companies, although these amounted to very considerable sums. The consolidated accounts in such cases would, of course, have shown the obligations of the company and its subsidiary companies and the assets against them.

However, it is not necessary to discuss at length with accountants the need for consolidation. Those members of the institute who are not convinced on this point can refer to excellent papers on the subject by W. M. Lybrand and others as well as to standard text-books.

For a time many lawyers were opposed to the presentation of consolidated accounts by companies to their stockholders, but the leading lawyers engaged in corporation practice have long since recognized that the technical legal situation is less important to stockholders and the public than the substantial position and have accordingly accepted the principle of consolidated accounts.

The federal reserve board has taken occasion to point out to banks which are members of the system that they do not get an adequate view of the financial condition of a company which has subsidiaries unless they secure consolidated accounts.

The income-tax law and regulations now require the submission of consolidated returns under certain conditions. The development of this requirement is very interesting.

The English finance act of 1915 contained a provision for consolidation in the following terms:

> Where any company, either in its own name or that of a nominee, owns the whole of the ordinary capital of any other company carrying on the same trade or business or so much of that capital as under the general law a single shareholder can legally own, the provisions of part III of this act as to excess profits duty and the pre-war standard of profits shall apply as if that other company were a branch of the first-named company, and the profits of the two companies shall not be separately assessed.

Our revenue act of 1917 contained no mention of consolidated returns, but before the regulations were issued the American Institute of Accountants submitted a brief strongly advocating

consolidated returns. The brief was published in THE JOURNAL OF ACCOUNTANCY of January, 1919. The full brief should be carefully read, but the following excerpts may be quoted:

> If the rule which we advocate (consolidated returns) be adopted the tax will be based on the real facts and determined by the relation between true income and the true investment of the group of companies as a whole; and the latter course (consolidated returns) would impose no additional burdens on anyone, since it is the course followed for all practical purposes by the corporations themselves and recognized by bankers, economists and accountants as the only course which reveals the true situation.

The regulations subsequently issued provided that "whenever necessary to more equitably determine the invested capital or taxable income the commissioner of internal revenue *may* require corporations classified as affiliated under article 77 to furnish a consolidated return of net income and invested capital." Subsequently, a treasury decision was issued under which "affiliated corporations, as limited and defined in paragraphs C and D of the regulations *are hereby directed* to make consolidated returns for the purpose of excess profits tax." In these regulations it was stated:

> A. Two or more corporations are not "affiliated" merely because all or substantially all of the stock therein is owned by the same corporation, individual or partnership; they must also be engaged in the same or a closely related business.

Under the revenue law of 1918 consolidated returns were specifically mentioned in the act, which states that "corporations which are affiliated within the meaning of this section *shall,* under regulations to be prescribed by the commissioner . . . make a consolidated return of net income and invested capital." The act stated that two or more domestic corporations shall be deemed to be affiliated (1) if one corporation owns directly or controls through closely affiliated interest, or by a nominee or nominees, substantially all the stock of the other or others; or (2) if substantially all the stock of two or more domestic corporations is owned or controlled by the same interests. It will thus be seen that in the 1917 act no mention was made of consolidated returns but that the regulations provided for the consolidated returns of affiliated companies engaged in the same or closely related business, while the 1918 act specifically recognizes and calls for consolidated returns and makes the requisite the holding of all or substantially all the voting stock irrespective of whether the companies are engaged in similar businesses or not.

It may therefore be fairly said that the principle of consolidation has attained general acceptance. It may be well to mention, however, that a consolidated return for purposes of the revenue act may be a very different statement from the consolidated accounts prepared by the company for submission to its stockholders. The chief reasons for this difference are that for the revenue act foreign corporations are not brought into the consolidation and under the 1918 act companies organized after August 1, 1914, not successor to a then existing business, 50% of whose gross income was derived from government contracts made between April 6, 1917, and November 11, 1918, are not included. It might also happen that companies the stock of which was owned by another corporation to the extent of between 50 and 95%, might be consolidated in the statement submitted to stockholders but might be excluded in the statement prepared under the revenue act of 1918.

* * * * * *

The two principal points for consideration in regard to consolidated accounts are:

1—What companies should be consolidated.

2—How the consolidated account should be prepared.

What Companies Should be Consolidated

The regulations of the revenue act of 1918 provide that the owning or controlling of 95% or more of the outstanding voting capital stock shall be deemed to constitute an affiliation, but that consolidated returns may be required even though the stock ownership is less than 95%; and the regulations call for disclosure of affiliations where the stock ownership is in excess of 50%. Under the revenue act, therefore, consolidation is obligatory when 95% or more of the voting stock is owned and may be called for when the stock ownership is in excess of 50%.

This leaves a wide range of possibilities, but it is not believed that any definite percentage can be laid down and the question of whether the accounts of a company should be consolidated or not for the purpose of published statements is largely one of judgment, bearing in mind always that the object of the consolidated balance-sheet is to show the true financial position of

the company and its subsidiary companies. In doubtful or border-line cases the final test must be whether or not the true financial position is best shown by consolidation.

How the Consolidated Accounts Should be Prepared

Consolidated Balance-Sheet

The object of a consolidated balance-sheet is to show the true financial position of a company and its subsidiary companies with regard to the outside public; consequently all inter-company holdings of stock and all inter-company balances of every kind should be eliminated in the consolidated balance-sheet.

The most practical method of preparing a consolidated balance-sheet is to use analysis paper and then, depending on the number of companies and the number of accounts to be shown on the balance-sheet, either list the asset and liability accounts on the side with a column for each company or list the companies on the side and have a column for each asset and liability account. The balance-sheet for each company should then be entered on the sheets and totals made of each account. A column or line should then be provided for eliminations and adjustments, and then a column or line for the final consolidated figures.

All inter-company current accounts should be shown separately and should be reconciled and any differences allocated to the proper asset or liability account. Thus if, as in the example shown later, it is found that a difference exists in the current account between two companies because goods shipped by one company have not been received and taken up on the books of the other, an entry should be made crediting inter-company account and charging inventory, as it is clear that the goods are still in the inventory of the group. When all differences on the inter-company accounts have been adjusted the inter-company debits will equal the inter-company credits and both should be eliminated.

The next elimination to be made is that of the inter-company holdings of capital stocks.

It will frequently be found that the book value of the stock of a subsidiary company on the books of the holding company is different from the par value of the stock of the subsidiary company and this difference has to be adjusted.

Where the book value of a subsidiary company in a balance-sheet of the company holding that stock is in excess of the par value of the stock plus the surplus of the subsidiary company at the date of acquisition the excess should be charged to goodwill. Where the book value of the stock of a subsidiary company in a balance-sheet of the company holding that stock is less than the capital stock plus the surplus of the subsidiary company at date of acquisition, the difference should be credited to capital surplus, unless there is goodwill of a greater amount either on the accounts of the holding company or of the subsidiary company, or if there is goodwill of a greater amount arising from purchases of stocks of other subsidiary companies. This treatment is based on the assumption that goodwill is shown separately, but many companies in their published accounts do not show goodwill separately and simply have an account called "cost of properties." In this case the debits and credits would be made to this account instead of to goodwill or capital surplus.

Objections have frequently been made to the elimination of the surplus of the subsidiary company at date of acquisition, and claim has been made that this surplus should form part of the consolidated surplus; but it seems to be clear that when a company buys the stock of another company it also purchases the surplus accumulated to the date of purchase, and consequently the surplus at date of acquisition should in consolidation be treated in the same way as the capital stock. If any dividends are received out of that surplus they should be credited to the cost of the investment on the books of the holding company.

By applying to consolidated accounts the principle that a company cannot make profits before it has begun business, we reach the conclusion that the profit and loss account of a parent or holding company should reflect only the profits of that company from its inception together with the profits of subsidiary companies from the dates of their acquisition.

Where one corporation does not own the whole of the capital stock of a subsidiary company, but where the accounts are to be consolidated, the amount to be eliminated should be the par value of the stock of the subsidiary company owned by the company and the proportion of the surplus at date of acquisition applicable to the stock owned. When this amount has been

eliminated with the corresponding debit or credit to goodwill or to capital surplus, it will leave the par value of the stock of the subsidiary company in the hands of the public and the pro rata share of the surplus at date of acquisition, which together with the proportion of the surplus since acquisition should be shown on the balance-sheet as capital stock of subsidiary companies in hands of public at book value. Subsequent earnings of the subsidiary company should be divided according to the stock owned by the parent company and that in the hands of the public—the proportion applicable to the stock of the parent company being taken into the profit and loss account of that company and the proportion applicable to the stock in the hands of the public being added to the book value of the stock in the hands of the public.

Some corporations have not followed this method but have taken up in the consolidated assets and liabilities the proportion of each asset and liability applicable to the stock owned. It is not believed that this is the best technique, nor that it is the best method of showing the financial position of the consolidated companies. If one company owns 90% of the stock of another company, the inclusion of 90% of the plant and other assets and 90% of the liabilities of the subsidiary company does not really show the true position; and it seems more reasonable to assume that all the assets and all the liabilities belong to the consolidated group with a liability to outsiders of the value of the stock owned by them.

The method of taking up a proportion of the assets and liabilities also gives rise to some rather peculiar results in inter-company accounts. For example, if the parent company has an account receivable of $1,000 against the subsidiary company (say 90% owned) and the subsidiary company a corresponding liability to the parent company, then if the percentage of the assets and liabilities of the subsidiary company is taken this would result in showing the inter-company item as only $900.00 in the subsidiary company's liabilities against the $1,000.00 on the parent company, and it would, therefore, be necessary to treat $100.00 as an account receivable from outsiders in the consolidated statement.

Another item which requires careful investigation in consolidated accounts is that of inventories. If the various companies in a consolidation buy or sell from one another and if these transactions are not put through at cost, the inventories of some of the companies will contain inter-company profit. As the object of the consolidated balance-sheet is to show the financial position of the group as a unit this would be equivalent to a single company's taking up inventories at a valuation higher than cost.

In these cases the inter-company profit in the inventory both at the beginning and end of the period should be ascertained and entries made charging surplus at the beginning of the period with the inter-company profit at the beginning of the period, crediting inventories with the inter-company profit at the end of the period and charging or crediting the profits of the year with the increase or decrease of the inter-company profit in the inventories at end of the year compared with that at the beginning of the year.

It frequently happens that there may be within a group control of other corporations which are not consolidated on account of the holdings being perhaps a bare majority of the stock. It is largely a matter of judgment whether or not the group's proportion of the earnings of these controlled companies should be taken into the accounts of the group. Certainly where there is a control which is not exercised it would not appear that the proportion of the earnings of the controlled company should be taken up, but that only dividends actually received should be credited to profit and loss. Where, however, control is exercised, there seems no reason why the proportion of profits or losses of the controlled company should not be taken into the accounts. The entry to be made on the books of the holding company would be to charge undivided profits of controlled companies—which in the published accounts might be added to the investment in controlled companies—and credit profit and loss. As dividends are received cash will be debited and undivided profits of controlled companies credited.

In certain cases where investments in controlled companies represent a substantial portion of the assets of a company, it is

WORK SHEET FOR CONSOLIDATED BALANCE-SHEET

ASSETS

	A	B	C		Eliminations and adjustments	Consolidated
Properties	$1,000,000.00	$100,000.00	$200,000.00			$1,300,000.00
Less—Depreciation	100,000.00	10,000.00	20,000.00			130,000.00
	$900,000.00	$90,000.00	$180,000.00			$1,170,000.00
				(1)	$19,750.00	
Goodwill	250,000.00	50,000.00		(5)	50,000.00	330,250.00
Investments in stocks of subsidiary companies:						
B (par value $ 95,000)	80,000.00			(1)	80,000.00	
C (par value $100,000)	175,000.00			(5)	175,000.00	
Inventories	220,000.00	100,000.00	75,000.00	(6)	5,000.00	390,000.00
				(8)	10,000.00	
Accounts receivable	175,000.00	50,000.00				225,000.00
Cash	150,000.00	10,000.00	20,000.00	(7)	5,000.00	185,000.00
Deferred charges	25,000.00					25,000.00
Inter-company accounts	100,000.00	85,000.00	5,000.00	(6)	5,000.00	
				(7)	5,000.00	
	$2,075,000.00	$215,000.00	$270,000.00		$234,750.00	$2,325,250.00

LIABILITIES

	A	B	C		Eliminations and adjustments	Consolidated
Capital stock	$1,000,000.00	$100,000.00	$100,000.00	(1)	$95,000.00	
				(2)	5,000.00	
				(5)	100,000.00	$1,000,000.00
Capital stock of subsidiary companies in hands of public at book value				(2)	5,000.00	
				(3)	250.00	
				(4)	250.00	5,500.00
Bonds	500,000.00					500,000.00
Bills payable	100,000.00	30,000.00				130,000.00
Accounts payable	50,000.00	75,000.00	70,000.00			195,000.00
Surplus	425,000.00	10,000.00	100,000.00	(1)	4,750.00	
				(3)	250.00	
				(4)	250.00	
				(5)	25,000.00	
				(8)	10,000.00	494,750.00
	$2,075,000.00	$215,000.00	$270,000.00		$234,750.00	$2,325,250.00

WORK SHEET FOR SURPLUS ACCOUNT

	A	B	C		Eliminations and adjustments	Consolidated
Surplus of subsidiary companies prior to acquisition by holding company		$5,000.00	$25,000.00	(1)	$4,750.00	
				(3)	250.00	
				(5)	25,000.00	
Surplus at beginning of year—A	$300,000.00			(9)	7,500.00	
Surplus of subsidiary companies from date of acquisition to beginning of year		2,500.00	100,000.00	(4)	125.00	$394,875.00
Profit for year, excluding dividends from subsidiary companies				(8)	10,000.00	
	65,500.00	12,500.00	75,000.00	(7)	7,500.00	
				(4)	625.00	149,875.00
Inter-company dividends	109,500.00	10,000.00	100,000.00	(4)	500.00	
Dividends paid by holding company	50,000.00					50,000.00
Surplus at end of year	$425,000.00	$10,000.00	$100,000.00			$494,750.00

desirable to furnish, with the holding company's balance-sheet and profit and loss account, balance-sheets and profit and loss accounts of the controlled companies.

Profit and Loss

The profit and loss account of a parent company alone would show the profits from its own operations together with dividends received from subsidiary companies, but the earnings of the parent company and its subsidiary companies can only be shown correctly by taking into account the profits or losses of the parent company and each subsidiary company irrespective of whether dividends have been declared or not.

In preparing the consolidated profit and loss account the same principle of eliminating all inter-company transactions should, of course, be followed.

Example of a Simple Consolidated Balance-sheet

In order to illustrate the method of consolidation a simple example may be taken. (The figures used for the various assets and liabilities are not taken with any regard to the relative proportions that might be expected in actual experience.)

We will assume:

That the parent company A, which is also an operating company, owns 95% of the stock of B and 100% of the stock of C;

That B and C each have a capital of $100,000;

That the 95% of the stock of B stands on the books of A at $80,000;

That the 100% stock of C stands on the books of A at $175,000;

That the surplus of B at date of acquisition was $5,000 and the surplus of C at date of acquisition $25,000.

We will first eliminate the investment of A in B and C and the capital stock of B and C owned by A.

The book value of the stock of B at date of acquisition by A is $105,000 ($100,000 stock and $5,000 surplus). Ninety-five per cent. thereof is $99,750. The value on the books of A is $80,000 and there must therefore be a credit to goodwill of $19,750 (entry No. 1). This leaves the $5,000 stock of B not owned by A which by entry No. 2 is transferred to capital stock

of subsidiary companies in hands of public at book value, so as to show separately the outstanding capital stock of the parent company and the stock of the subsidiary companies not owned. Of the surplus of B at date of acquisition there is left $250, the proportion of the surplus at that date applicable to the stock in hands of the public, and this is transferred from surplus to stock of subsidiary companies in hands of public at book value by entry No. 3. The surplus account of B at the date of the balance-sheet still contains the proportion of the surplus since date of acquisition applicable to the stock in the hands of the public, and this is transferred by entry No. 4.

In the case of the stock of C, all the stock is owned by A, and consequently only one entry is necessary. The book value of the stock of C at date of acquisition is $125,000 and it is carried on the books of A at $175,000 and it is necessary therefore to debit goodwill with $50,000 in eliminating these items (entry No. 5).

The balance-sheets show that the inter-company accounts are not in agreement and investigation shows that the difference arises because a shipment of goods made by one company and valued at $5,000 had not been received or taken up by the receiving company, and that a remittance of $5,000 made by one company had not been received by the other company. These are adjusted by entries No. 6 and No. 7, charging inventories and cash and crediting inter-company accounts.

In the example taken, one of the companies sells to another and allowance has therefore to be made for inter-company profit in the inventories, and this has been eliminated by entry No. 8.

By extending the various items into the consolidated column the consolidated balance-sheet is obtained. In this balance-sheet, however, the surplus account is shown in one item, and, in order to show the surplus at the beginning of the year, the profits for the year, dividends paid and surplus at the end of the year, a separate sheet has been used, although this detail can if desired be shown on the balance-sheet.

In making the eliminating and adjusting entries for the surplus analysis sheet, the debits and credits to surplus on the balance-sheet have to be applied to the various items in the surplus analysis. In the example taken, all the entries can be readily

applied to the proper items, with the exception of the debit of $250 in entry No. 4, for the proportion applicable to the stock in the hands of the public of the surplus of B since acquisition by A. This is divided as follows:

Surplus from date of acquisition to beginning of year, 5% of $2,500	$125.00
Proportion of profits for year, 5% of $12,500	625.00
	$750.00
Less—Proportion of dividend, 5% of $10,000	$500.00
	$250.00

All the entries on the balance-sheet having been made there still remain to be made entries for any items made at the end of the previous year not taken up on the books of any of the companies. In this case an entry would be necessary for the inter-company profit in inventories at the beginning of the year. We have assumed that this amounted to $7,500, and consequently make an entry debiting surplus at beginning of the year and crediting profits for the year with this amount.

The entries for inter-company profits in the inventory are only necessary where goods are not transferred at cost and where each company values its inventory at cost as billed to it. Where inventories are reduced to net integration cost before being taken up on the books of the various companies these entries are not necessary.

Eliminating and Adjusting Entries

No. 1

Capital stock (of B owned by A),	Dr. $95,000.00	
Surplus (surplus of B at date of acquisition by A, applicable to stock owned by A),	4,750.00	
To investment in stock of B (cost on books of A),		$80,000.00

Goodwill (difference between par value plus surplus at date of acquisition and cost to A),			19,750.00
No. 2			
Capital stock of B,	Dr.	5,000.00	
To capital stock of subsidiary companies in hands of public at book value,			5,000.00
Par value of B capital stock in hands of public.			
No. 3			
Surplus,	Dr.	250.00	
To capital stock of subsidiary companies in hands of public at book value,			250.00
Proportion of surplus of B at date of acquisition applicable to stock in hands of public.			
No. 4			
Surplus,	Dr.	250.00	
To capital stock of subsidiary companies in hands of public at book value,			250.00
Proportion of surplus of B since date of acquisition applicable to stock in hands of public.			
No. 5			
Capital stock (of C owned by A),	Dr.	$100,000.00	
Surplus (surplus of C at date of acquisition by A),		25,000.00	
Goodwill (difference between cost and par value and surplus at date of acquisition of stock of C owned by A),		50,000.00	
To investment in stock of C (cost to A)			$175,000.00

No. 6

Inventories,	Dr.	5,000.00	
To inter-company accounts,			5,000.00
Shipment by A to B taken up by B.			

No. 7

Cash,	Dr.	5,000.00	
To inter-company accounts,			5,000.00
Cash in transit remitted by C to B not received by B.			

No. 8

Surplus,	Dr.	10,000.00	
To inventories,			10,000.00
Inter-company profit in inventories at end of year.			

No. 9

Surplus,	Dr.	7,500.00	
To surplus,			7,500.00
For inter-company profits in inventories at beginning of year.			

Relation of Invested Capital to Excess Profits Tax*

By Stephen G. Rusk

Since the enactment of the revenue laws of 1917 and 1918, especially those sections thereof that pertain to the taxation of so-called excess profits, the subject of invested capital has been one of conspicuous interest and concern. The excess profits tax, being based upon invested capital (and the government's interpretation of what comprises invested capital as a basis of taxation), has been the cause of this lively interest and anxiety.

Policy of Conservatism

It has not been an unusual practice among business men to conduct their enterprises in an ultra-conservative manner with respect to a showing of assets or the capitalization of expenditures which wholly or in part represented capital outlay rather than expenses. Their apparent aim seemed to be a desire to build up reserves to tide the business over the shoals of unprofitable years and to provide against stringent financial periods. Too often little or no attempt was made to have the financial records always kept so as to show the cost of the acquisition of assets, the amounts of depreciation and other data necessary to a full and accurate view of the precise financial status at any given date.

This policy of conservatism was and is a sound one; but because the accounting records have not shown the true conditions nor the consecutive steps that have been taken to give effect to this policy, many taxpayers feel that they are now being penalized for having pursued what they rightfully deemed to be praiseworthy methods in the conduct of their financial affairs. They do not recognize that the penalty they now are paying arises from the lack of proper records of the methods by which these reserves were created rather than from pursuing a commendable and conservative policy.

Importance of Adequate Records

However, many are thinking more clearly with respect to this matter and are beginning to realize the importance of clear, com-

* A paper read at the annual meeting of the American Institute of Accountants, Cincinnati, Ohio, September 17, 1919.

prehensive and accurate bookkeeping in the conduct of their business.

It is a dearly acquired lesson to many who, by reason of improper accounting, now find themselves obliged to pay a much higher tax than they would have had to pay were they now able to trace their financial history and prove to the satisfaction of the treasury department that their book showing of invested capital is erroneous, and to what extent it is erroneous.

The government has immensely strengthened the accountant's long maintained position that the books of account should show all the facts and that, when it is found necessary partly to estimate values, the manner and amount of such estimate should be clearly written into the accounting history of the enterprise.

How often, since early in the year 1918, have we heard from the lips of an outraged taxpayer quotations from section 210 of the 1917 law, to the effect that his is

> "an exceptional case in which the invested capital cannot be satisfactorily determined"?

How often have we heard the reasons given in support of this assertion that

> "through defective accounting or the lack of adequate data, it is impossible to accurately compute the invested capital"?

quoted from the particularly apt language of section 210, article 52, of regulations 41 covering the 1917 law.

Again we have heard them insist that their condition could be likened unto that described in the following language:

> "Long established business concerns which by reason of ultra conservative accounting and the form and manner of their organization would, through the operation of section 207, be placed at a serious disadvantage in competing with representative concerns in a like or similar trade or business."

These taxpayers usually arrived at a comprehension of the above quoted conditions when they discovered that (again quoting article 52)

> "the invested capital is seriously disproportionate to taxable income."

Accountants generally have discovered how often the taxpayer was truly picturing his own conditions. What delving into old and musty records there has been to discover the evidence to convince the treasury department the quoted language exactly fitted a particular case.

All accountants know how often they have been called upon to face just such a situation for their clients, and particularly how often there has been every presumption that the taxpayer was in possession of a much greater invested capital than could be proved from his books or other available data, until finally he was compelled to rest his appeal, under section 210, solely upon the bald and unsupported assertion that "the invested capital was seriously disproportionate to the taxable income."

Similar situations were met in computing the taxes under the 1918 law, but while the latter law has been more carefully drawn than the 1917 law and has given some additional latitude to taxpayers and has eliminated some of the obstructions, there are still many cases that require relief under sections 327 and 328 of that law.

Books Presumed to Show Invested Capital

Invested capital is a phrase that has come to have importance in every business man's vocabulary, and he is studying the most approved methods of financing his enterprise so that he may get the proper balance between borrowed capital and invested capital. Fortunately for him the limitation as to deductible interest contained in the 1917 law has been eliminated from the 1918 law. This limitation prevented many taxpayers with large amounts of borrowed capital from deducting interest on any but the "maximum principal equal to the amount of the paid up capital plus one-half of the interest bearing indebtedness outstanding at the close of the year" in arriving at their taxable income.

This feature of the 1917 law caused much controversy and, as many have said, was inequitable.

The fact that the government has laid down the rule for determining invested capital that the "books of account will be presumed to show the facts" and "any additional amounts allowed as invested capital must be proven to the satisfaction of the treasury department" has been a potent factor in increasing the taxpayer's respect for his financial accounting records. He now realizes that properly kept accounts should be for him the sole evidence of the amount of his invested capital; the amounts he now has to prove by other forms of evidence are difficult to determine, and he suspects that he has lost track of values of which he should have undoubted records.

Adjustment of Invested Capital Shown by Books

To the invested capital shown by the books of account may be added such additional assets as may be in the possession of the taxpayer provided adequate evidence can be produced to prove the propriety of their inclusion to the satisfaction of the treasury department. Provision for the inclusion of such additional amounts was made in the 1917 and 1918 returns in the schedule entitled "adjustments by way of additions" and the nature of the items and the proof to be submitted are fully set forth in the regulations.

The adjustment of invested capital described in schedule B, item 2 of the 1917 law, as "value of tangible property in excess of par value of stock issued therefor," is one that caused considerable misapprehension as to the taxpayer's rights thereunder.

Article 63 of regulations 41 of the 1917 law defined cases coming under this head and described the necessary evidence to be submitted to validate the claim.

In order to show the reason for the general misconception of this matter the regulation will first be quoted:

When tangible property may be included in surplus:

> Where it can be shown by evidence satisfactory to the commissioner of internal revenue that tangible property has been conveyed to a corporation or partnership by gift or at a value accurately ascertainable, or definitely known as at the date of conveyance, clearly and substantially in excess of the par value of the stock, or shares paid therefor, then the amount of the excess shall be deemed to be paid in surplus. The adopted value shall not cover mineral deposits or other properties discovered or developed after the date of conveyance but shall be confined to the value accurately ascertainable or definitely known at that time.
>
> Evidence tending to support a claim for paid in surplus under these circumstances must be as of the date of conveyance and may consist among other things of (1) an appraisal of the property by disinterested authorities, (2) the assessed value in the case of real estate, and (3) the market price in excess of the par value of the stock or shares."

Many taxpayers took advantage of the opening seemingly left by this language and sought to increase their invested capital by adding thereto excess value over stock issued for assets acquired by them through a favorable purchase. Many corporations had succeeded to property held in receiverships and had for a comparatively small amount of capital stock acquired property of a value greatly in excess of the par value of the stock given in pay-

ment therefor. Without question they adjusted their invested capital by adding this excess value to their book showing of invested capital.

They were much surprised when such adjustments were disallowed and it was explained to them this provision of the law was intended to cover cases where there had been no substantial change of beneficial interest in the property paid in to the corporation.

Article 836 of regulations 45 of the 1918 law is much more explicit upon this matter than was article 63 of regulations 41 of the 1917 law, and the taxpayer cannot fail to distinguish his case from cases in which paid-in surplus will be allowed and can readily determine whether or not he has a valid claim under this heading.

The requirements to submit balance-sheet showing the taxpayer's financial status at the beginning and end of the pre-war period and at the beginning and end of the taxable year; the schedules in which is shown the invested capital at the beginning of each of the pre-war years; the schedule in which are shown all changes in outstanding capital stock from the end of the prewar period to the beginning of the taxable year, together with the analysis of surplus from December 31, 1910, down through the taxable year, makes the path anything but smooth for one who would attempt to increase his invested capital in ways that are contrary to the regulations.

Intangibles

The government's regulations in regard to the exclusion of certain intangible asset values has also been the source of much thought and controversy. It will be remembered that intangible assets, consisting of patents, goodwill, trade names, etc., can only be included in invested capital to the extent that the amount represents actual cash outlay, or to a limited extent if the intangible was acquired in payment for stock of the corporation prior to March 3, 1917. This method of valuation takes no account of the developed value, no matter how far from the present the latter may have accrued.

For example, we have seen instances where a patent was the most valuable asset held by a taxpayer and without it his invested capital was very seriously disproportionate to his taxable income,

although his accounting records were proper. As a result the taxpayer was obliged to appeal to the treasury department to have his tax assessed under the provision of section 210 of the 1917 law or under sections 327 and 328 of the 1918 law.

This course leaves the whole matter of his taxation to the treasury department in these particularly difficult instances, and it is assumed the taxpayer will obtain relief from the department after it has given his case special consideration. Whether or not the tax is equitable, when determined by the proper authorities, depends upon the taxpayer's ability to describe his situation clearly and comprehensively, so that when understood it may be compared with others of similar nature. Adequate relief also depends on the ability of the department to find cases fairly comparable to his. In view of the large number of returns that have appeals attached asking to be assessed under these relief sections of the 1917 and 1918 laws, it would seem to devolve upon someone to formulate a ruling that would give recognition to bona fide cases of developed value of intangible assets. Of course, it can readily be seen that this regulation must be most carefully drawn in order to exclude all but intangible assets of definitely provable worth, because it takes no stretch of the imagination to conjure up a view of the number who would set up claims of values attaching to patents, goodwill, trade-marks, formulae, contracts or other intangible assets, wholly beyond the limits of any reasonable valuations. Nor is it difficult to foresee the almost insurmountable obstacles in the way of deciding what would be and what would not be fair values for these intangible assets.

Where a corporation has actually invested either cash or its capital stock in intangible assets, the question is comparatively simple, and it may have been the part of wisdom to limit the admission of intangible assets to those so acquired.

Actual Outlay Versus Value at March 1, 1913

The theory that invested capital, as uniformly construed throughout the acts and the regulations of 1917 and 1918, represents actual values paid in by the stockholders (and "paid in" also includes actual capital earned and left in by the stockholders) and not the value of the net capital assets as at March 1, 1913,

has caused much controversy. The arguments in favor of determining the present worth of invested capital at March 1, 1913, are too well known for enumeration here.

If the theory of determining the worth at March 1, 1913, were accepted and written into the regulations, it would relieve the auditors and inspectors in the treasury department, who are now engaged in solving the many knotty problems contained in section 210 of the 1917 law and sections 327 and 328 of the 1918 law, from considerable responsibility and labor.

Personal Service Corporations

The exact meaning of section 209 of the 1917 law and section 200 of the 1918 law, defining personal service corporations, has puzzled many taxpayers whose business required simply a nominal capital and whose income flowed directly from the combined efforts of its stockholders. Many taxpayers apparently coming under the provisions of the above mentioned sections have been surprised to find that their returns could not be assessed thereunder.

In the 1918 law the distinction between those properly belonging in that category and those not so belonging is more clearly defined* than it was in the 1917 law.

All the stock holders of a corporation may be active in the conduct of its affairs; the profits may be primarily attributable to the activities of the stockholders; such a corporation may only have a nominal capital stock—but if the employment of capital appears as an essential to the business, it will be ruled not to be a personal service corporation. Besides having the attributes of rendering a personal service for compensation, the employment of capital, whether borrowed or invested by the stockholders, must not be more than incidental. If it can be successfully argued that the employment of capital is essential to the conduct of the business, the corporation cannot be considered a personal service corporation.

In the consideration of such a case before a committee in the treasury department having the responsibility of determining whether or not a corporation's taxes should be assessed under the provisions of section 209 of the 1917 law, a certain corporation

* See articles 1523 to 1532 of regulations 45.

was denied the right to be assessed under that section because it had advanced sums of borrowed money, or funds arising from its own undrawn profits, to one of the principals for whom it acted as selling agent.

This corporation was one commonly classified as a close corporation, where its profits were directly attributable to the activities of its stockholders. Its capital stock was nominal. It acted as selling agent for several manufacturers. Its contractual relations with one of its principals compelled it to make advances to the principal on partly completed work. This money it sometimes borrowed and sometimes drew from its own funds. It did not handle the product it sold, that being shipped directly from the factory of the principal. The billing, however, was done by the corporation as agent, at a higher price than was paid to the principal. The corporation collected from the purchaser and settled with the principal. It was held, because the agent advanced funds to the principal, that the agent assumed responsibility for the collection of the accounts and hence the conduct of the business required capital.

The position taken by the department seems correct, but it also illustrates how narrow is the line between those which can and those which cannot be considered personal service corporations.

Excess Profits Taxes

The term excess profits tax does not accurately describe a tax that is based on 8 per cent. of invested capital. It would seem that the so-called war profits tax could better be described as excess profits tax.

To say that excess profits are being taxed when a corporation's earnings above 8 per cent. are subject to taxation, especially in these days of rising prices and interest rates and falling worth of the dollar, is not a precise statement, because many corporations could not face the hazards of their particular business if the expected return did not exceed a greater percentage on the amount invested.

However, it must also be remembered that the 8 per cent. excess profits credit is based on invested capital and not upon the actual par value of the stock outstanding, and the invested capital

is in almost all cases greater by reason of the accumulation of surplus. Hence, the corporation has an untaxed income usually in excess of 8 per cent. based on its capital stock.

In instances where the corporation's capital has become impaired and there is a present deficit, the ruling that the excess profits credit shall be based upon the capital stock paid in, regardless of the fact that some part of it has been lost, seems to be fair to the taxpayer.

The specific excess profits credit of $3,000.00 has the desired effect of relieving the taxpayers with small incomes from the payment of the excess profits tax. It also admits an element into the law that gives some difficulty in calculating the mathematical relation of invested capital to excess profits tax.

Another consideration in viewing the effects of the excess profits credit must be borne in mind. While 8 per cent. on invested capital, plus $3,000.00 of income, is apparently being exempted from excess profits taxation, the fact may actually be somewhat different because the law does not permit certain legitimate expenses of a business to be deducted. Reference is here made to donations, insurance premiums on the life of an officer or employee where the taxpayer is the beneficiary, the charges to unallowable reserves, etc.

It is not unusual to find a corporation, in which excess profits tax is a high percentage of its actual income, whose percentage of these taxes to taxable income is many points lower.

It would seem that the regulations with reference to donations by corporations could be modified to permit deductions for donations and contributions made to the Red Cross, Y. M. C. A., Y. W. C. A., K. of C., and like benevolences, even though there be no direct benefit therefrom flowing to the donor, without opening the door to evasion of tax.

Taxable Income

One cannot study the present forms for setting forth the facts concerning invested capital and taxable income without a feeling of admiration for the prevision and skill of those who devised it. For the first time many taxpayers have seen a sort of panoramic view of their business by observing the statistics required by the 1918 return. These taxpayers apparently were not aware of the valuable information contained in their books of account, but now

have a greater appreciation of the possibilities for increased control of their financial destiny which proper accounting affords. Many of them also learned for the first time that there is an intimate and precise relation between capital and income; and some things they have said about either or both in former tax returns cannot now be squared with the schedules required in the present forms.

A comparison of the 1917 law and the regulations thereunder with the 1918 law and regulations discovers a very marked improvement in the language of the latter, in that it is more definite and comprehensive.

Numerous defects that were found in the 1917 law and regulations have been eliminated and many puzzling features have been cleared up. This is especially true in regard to depreciation. Obsolescence, which is a definite element of cost in some industries, has been recognized and rules have been laid down for the determination of deductible depreciation that are in conformity with sound business and accounting principles.

The 1918 regulations as to depletion have also been stated more clearly, and the inequities apparent in the 1917 law and regulations have been eliminated. The extension of the base upon which depletion can be taken to include the "fair market value within thirty days after the date of discovery in the case of mines, oil and gas wells, discovered by a taxpayer after February 28, 1913, where the fair market value is materially disproportionate to the cost" is one instance of the elimination of an inequity in the former regulations. Another instance is the extension of the base to permit a lessee to include the fair market value of the lease at February 28, 1913, and the allowing to him of similar values for discovered deposits of minerals, oils or gas.

The article relating to the apportionment of depletion between lessor and lessee removes the cause of much controversy attendant upon administering the 1917 law.

Relation of Invested Capital to Excess Profits Tax

Considering now the thought underlying the subject of this paper brings into view the most important result to taxpayers of the application of the law, though to accountants it has not taken on the same degree of interest.

The taxpayer's interest arises from his desire to know to what extent his net income is to be affected by the application of the excess profits tax.

In the remaining paragraphs of this paper will be taken up the mathematical relationship between invested capital and excess profits tax.

Under the rates of taxation prescribed by section 301 of the 1918 revenue act for the year 1918, the following rule will be found to apply in the determination of the relation of excess profits tax to invested capital, in cases where the invested capital is in excess of $25,000.

> When the taxable income is in excess of $3,000 plus 8 per cent. of the invested capital and not in excess of 20 per cent. of the invested capital.
>
> > Multiply the invested capital by three-tenths of one per cent. for each per cent. of the excess over 8 per cent. and from the result deduct $900.
>
> When the taxable income is in excess of 20 per cent. of invested capital
>
> > Multiply the invested capital by sixty-five one hundredths per cent. for each percentage point above 20 per cent.:
> >
> > Add 3.6 per cent. of the invested capital and from the result deduct $900.

The following rule will apply in cases where the invested capital is less than $25,000.

> When the taxable income is in excess of $3,000 plus 8 per cent. of the invested capital
>
> > Multiply the invested capital by sixty-five one hundredths of one per cent. for each percentage point above 8 per cent. and from the result deduct $1,950.

Under the rates prescribed in section 301 pertaining to 1919, the rule is as follows:

> When the taxable income is in excess of $3,000 plus 8 per cent. of the invested capital and not in excess of 20 per cent. of the invested capital

Multiply the invested capital by two-tenths of one per cent. for each per cent. of the excess over 8 per cent., and from the result deduct $600.

When taxable income is in excess of 20 per cent. of the invested capital

Multiply the invested capital by four-tenths of one per cent. for each percentage point above 20 per cent.; add 2.4 per cent of the invested capital and from the result deduct $600.

The following rule will apply in cases where the invested capital is less than $25,000.

When the taxable income is in excess of $3,000 plus 8 per cent. of the invested capital

Multiply the invested capital by four-tenths of one per cent. for each percentage point above 8 per cent. and from the result deduct $1,200.

Limitations of Section 302

The above rules do not apply if the tax upon the taxable income is subject to the limitation provided in section 302.

This section provides that the tax imposed by the 1918 rate contained in section 301 shall not be in excess of 30 per cent. of the net income in excess of $3,000, and not in excess of $20,000, plus 80 per cent. of the net income in excess of $20,000.

It also provides that the tax imposed by the 1919 rates contained in section 301 shall not be in excess of 20 per cent. of the net income in excess of $3,000 and not in excess of $20,000, plus 40 per cent. of the net income in excess of $20,000.

These limitations upon the tax imposed by section 301 present some interesting mathematical problems, the solution of which shows the particular conditions that must be present if section 302 is to be effective, rather than section 301, in the computation of the excess profits tax.

The rules that govern in cases where the taxation is calculated under section 302 rather than under section 301, are as follows:

Under 1918 *Rates*

If invested capital is less than $74,468.09, the taxpayer may be benefited by the limitations of this section.

When the invested capital is between \$25,000 and \$74,468.09 the rates under section 302 will begin to be effective when the taxable income is 26 6/7 per cent. of the invested capital and will cease to be effective when the said income represents the remainder derived from deducting 62 2/3 per cent. of the invested capital from \$66,666.67. The limitation attains its maximum when the income is \$20,000. The maximum limitation at this point represents a saving of \$7,000 minus 9.4 per cent. of the invested capital.

For invested capital less than \$25,000 the limitation will begin to be effective when the taxable income is equal to the sum of 14 6/7 per cent. of the invested capital and \$3,000 and will cease to be effective when the income is equal to \$59,666.67 minus 34 2/3 per cent. of the invested capital.

The limitation here attains its maximum when the income is \$20,000 and this maximum benefit will be \$5,950 minus 5.2 per cent. of the invested capital.

Under 1919 *Rates*

If invested capital is less than \$71,428.58 the taxpayer may be benefited by the limitations of this section.

When invested capital is an amount between \$25,000 and \$71,428.58 and the taxable income is in excess of 28 per cent. of the invested capital, the rates prescribed by section 302 will be effective. The saving in taxes effected by the application of section 302 to the computation will be 20 per cent. of the amount by which the taxable income exceeds 28 per cent. of invested capital provided the said income is not in excess of \$20,000.

The maximum saving to the taxpayer is attained when the income is \$20,000 and the saving remains constant for all income in excess thereof.

The maximum saving is equal to \$4,000 minus 5.6 per cent. of the invested capital.

When invested capital is less than \$25,000 the saving to the taxpayer begins when his income is equal to the sum of 16 per cent. of his invested capital and \$3,000 and the saving is equal to 20 per cent. of the amount by which the income exceeds this limit.

As in the former case the saving becomes a constant when the income has reached \$20,000 and is then equal to \$3,400 minus 3.2 per cent. of the invested capital.

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EDITORIAL

Fair Examination

Now that we seem to be approaching the long desired establishment of uniformity in accounting examinations throughout the United States, it is opportune to consider what constitutes a fair and effective examination of the men and women who seek to enter the field of professional accountancy.

It is obvious that an examination, either written or oral, is not always a fair test, but in the absence of some other means of verifying the candidate's own opinion of his capabilities an examination technical in character must stand as the general method of proof.

The inescapable factors of personality and temperament prevent a common satisfaction in results. Every candidate for examination is nervous, and probably at least fifty per cent. of those who sit for examinations do not do themselves justice. They are working under abnormal conditions, with a time limit before them, with no possibility of consultation or calm deliberation, and yet, in spite of these handicaps, they are expected by many examiners to present papers of a finished and flawless nature.

Furthermore, in many cases the examination follows a period of intensive study which leaves the candidate in a condition peculiarly susceptible to the influence of nerves.

In the quest for fair examination these factors cannot be overlooked.

With all the facts duly considered, however, it must be conceded that an examination offers the candidate the best known way of demonstrating that he is what he believes himself to be.

There are forty-six states of the United States having laws providing for the certification of public accountants after examination. In the great majority the boards of examiners are animated by a desire to present an impartial and reasonable examination to the candidates; but there have been some departures from fairness which may have reflected an unfavorable light upon examining boards as a whole.

On the one hand we have the extreme case of a board which succeeded in passing two per cent. of its candidates, and on the other hand the equally undesirable extreme of a board which passed every candidate. Between these two points the examinations run the whole range of justice and injustice.

Apparently some state boards in the past have been chiefly concerned with an effort to convince the public of their innate cleverness. They have presented questions which it would be ridiculous to expect a candidate to answer without reference to authorities, and as a result they have excluded many men fully qualified to practise as public accountants. Out of this condition has grown the quite frequent allegation that accountants are trying to build up a close corporation by preventing newcomers.

Some of the boards of the states which have been guilty of this exclusiveness were probably quite honest. They confused difficulty with high standards, whereas, in point of fact, difficulty may have no bearing whatever upon standards.

We could set an examination in metaphysics which neither we nor anyone else could answer. What would be gained thereby? Would we have benefited the world and its inhabitants?

Has the so-called riddle of the sphinx added anything to human knowledge? Yet we must admit that it has the merit of difficulty. It is a lamentable error to make a fetish of difficulty. The school master who set his class an examination based upon ambiguities, vagueness, catch questions and the like would not shine long or brilliantly in the scholastic firmament.

This brings us back to our starting point: an examination should be fair—an assertion axiomatic but often forgotten.

What is the purpose of examination if not to bring out evidence of the ability of the person examined? Too many examiners in accounting have labored under the impression that

examination is a gate, the hinges of which should turn reluctantly, even rustily. In consequence we have the just complaint that accountancy is a field into which entry is too hardly achieved.

What business needs is accountants—more and more of them. It asks that they be prepared for the duties to be borne and that when prepared they be admitted. In far too many instances the gate has been practically closed against both the fit and the unfit.

These things are well known in the profession, and the need for reformation is acknowledged. Who can supply the solution? Surely the examining board of the national organization can and we believe will make full response to the demand.

Twice in every year the American Institute of Accountants conducts its oral and written examinations of applicants, and approximately thirty state boards of examiners employ the same written questions for candidates who present themselves to such boards for examination. We are therefore coming within view of national uniformity—a tremendous achievement in itself.

With standardized examination a fact, we must be sure that it is fair.

Is the institute's examination fair?

We believe that a qualified professional accountant who has been in practice four years should be able to satisfy the requirements of the examiners as set forth in the examinations which so far have been presented. We are confident also that an unqualified man—one not fitted to render professional service to the public—could not pass the test. This seems to be proof of the fairness and efficacy of the standard examination.

How has the institute's board attained the desired result? The answer to this question lies chiefly in the fact that the board has kept ever in mind that the young men and women in the profession have not and cannot have had quite so broad and comprehensive an experience as have the examiners themselves. The objective seems to be a friendly inquiry into the candidate's ability and knowledge, not expecting or demanding the breadth of vision which can only be attained through many years of experience, but insisting resolutely that there be a proper foundation upon which to build—a foundation whereon the profession in the coming years may rest secure.

Surely a fair, reasonable and searching test is the ideal standard, better infinitely than the mere piling of difficulty on difficulty to the confusion of candidate and the misguided self-satisfaction of the examiner.

And if experience be the teacher, as we learned in the Latin hours of our school-days, we may feel no doubt of the outcome, for the institute's standards are being adopted with a readiness not to be found among those who are unconvinced.

With fairness, not difficulty, for its watchword the profession will extend a welcome to every proper applicant.

American Institute of Accountants

ANNUAL MEETING, CINCINNATI, OHIO, SEPTEMBER 16 AND 17, 1919

Tuesday, September 16, 1919—First Session

The regular annual meeting of the American Institute of Accountants was called to order at 10 A. M., Tuesday, September 16, 1919, at the Hotel Sinton, Cincinnati, Ohio, President Waldron H. Rand presiding.

The meeting was opened with prayer.

Addresses of welcome were delivered by Samuel W. Bell, presiding judge of the municipal court of Cincinnati, and Henry G. Frost, president of the Cincinnati Business Men's Club.

The president briefly responded to the addresses of welcome.

Minutes of the preceding meeting as published in the year-book were approved without reading.

The president then presented his report,* which was accepted.

The report † of the council, including the report of the executive committee, was read and accepted.

Robert H. Montgomery moved that an effort be made to obtain additional subscriptions to the endowment fund. This motion was unanimously adopted.

On the call for subscriptions an amount of $11,250 was pledged by members present.

A rising vote of thanks was given to Mr. Montgomery in appreciation of the result of his efforts.

Harvey S. Chase, a member of the committee on federal legislation suggested that members should give their support to bill No. 1201 of the house of representatives introduced by Representative James W. Goode, calling for the establishment of a national budgetary system.

After consideration of the report of the committee on constitution and by-laws the following amendments to the constitution and by-laws were adopted:

Article IV, section 1 of the constitution:

In the first line omit "eleven" and insert "twelve."

After ninth line add "Ethical publicity."

Add to article VI, section 1 of the constitution the following:

"Mail ballots shall be valid and counted only if received within sixty days after date of mailing ballot forms from the office of the institute."

Add to article I, section 15 of the by-laws the following:

"Mail ballots shall be valid and counted only if received within sixty days after date of mailing ballot forms from the office of the institute."

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* See page 241.

† Reports of officers, council, board of examiners, committees and auditors will appear in the *Year-book* of the American Institute of Accountants.

After article V, section 1 of the by-laws add a new section as follows:

"Section 2. No person whose membership shall have been forfeited for non-payment of dues or other sum due by him to the institute may be reinstated, but a member or an associate who shall resign while in good standing may be reinstated by a three-fourths vote of the members of the council present and voting at any regular or special meeting of the council, providing the person applying shall submit with his application for reinstatement the amount of dues and assessments, subscriptions, etc., not in any case to exceed $25.00, which would have been payable by him if he had continued in membership from the time of resignation to the date of application for reinstatement. No person shall be considered to have resigned while in good standing if at the time of his resignation he was in debt to the institute for dues or other obligations."

It was resolved that members of the institute should be encouraged to use the title "Members (or Associates) of the American Institute of Accountants" when proper use could be made of that expression.

A motion that members be allowed to describe themselves as "M. A. I. A." and associates as "A. A. I. A." was lost.

Upon an informal report from the library that a complete bibliography of accounting subjects was in course of preparation and would probably be completed within the next few months, members were asked to indicate whether or not they would be willing to subscribe for such a bibliography. It was stated that the cost of production would make it necessary to charge $10.00 a copy for the complete work.

Nearly every member present indicated his willingness to subscribe to such a work of reference.

Tuesday, September 16, 1919—Second Session

A paper entitled *Capital Stock of No Par Value* by F. H. Hurdman was read and followed by discussion.

A rising vote of thanks was accorded Mr. Hurdman for his paper.

The reports of the treasurer and auditors were presented and accepted.

The report of the special committee on subsidiary organizations was read and accepted. This report was followed by a general discussion.

The following resolution was unanimously adopted:

Resolved, that it is the sense of this meeting that audit companies and similar organizations are detrimental to the best interests of the accounting profession.

It was resolved further that this action be communicated to the committee on constitution and by-laws with the request that it formulate such amendments as in its opinion would carry out this expression.

A letter, addressed by a member of the institute to the council, suggesting that a section of the institute be formed comprising accountants who specialize in cost work, was received.

Introduction of this letter was followed by general discussion.

Wednesday, September 17, 1919—First Session

The following officers and members of the council were unanimously elected:

President: Waldron H. Rand.

Vice-presidents: Arthur W. Teele and H. Ivor Thomas.

Treasurer: J. E. Sterrett.

Council for five years:

Hamilton S. Corwin
Edward E. Gore
Charles S. Ludlam
Overton S. Meldrum
Charles Neville
Adam A. Ross
C. M. Williams

For three years:

W. Ernest Seatree

For one year:

E. G. Shorrock

Auditors:

C. E. Iszard
Wm. R. Tolleth

A paper entitled *Consolidated Accounts* by George R. Webster was read and followed by discussion.

A rising vote of thanks was accorded Mr. Webster.

At the suggestion of members of the board of examiners of the Institute who were present an informal meeting of representatives of state boards of accountancy was called to convene immediately following the adjournment of the session.

Wednesday, September 17, 1919—Second Session

At the request of Edward E. Gore, chairman of the special committee on increased membership, Fayette H. Elwell, president of the American Association of University Instructors in Accounting, presented a brief suggesting that instructors in accounting be encouraged to take the examinations of the American Institute of Accountants.

The matter was referred to the appropriate committee.

A paper entitled *Relation Between Invested Capital and Excess Profits* by Stephen G. Rusk was read and followed by discussion.

A rising vote of thanks was accorded Mr. Rusk.

A vote of thanks and appreciation to the committee on meetings was unanimously carried by a rising vote.

The meeting adjourned.

COUNCIL

Regular Meeting, Monday, September 15, 1919

The regular annual meeting of the council of the American Institute of Accountants was called to order at 10 A. M., Monday, September 15, 1919, at the Hotel Sinton, Cincinnati, Ohio.

The following were present:

Waldron H. Rand, president, in the chair
E. G. Shorrock, vice-president
A. P. Richardson, secretary

Harvey S. Chase	Overton S. Meldrum
J. D. M. Crockett	Robert H. Montgomery
W. Sanders Davies	Carl H. Nau
John F. Forbes	Charles Neville
Edward E. Gore	John B. Niven
Elmer L. Hatter	Ernest Reckitt
William P. Hilton	W. A. Smith
J. Porter Joplin	Edward L. Suffern
Page Lawrence	Frederic A. Tilton
W. R. Mackenzie	William F. Weiss
J. E. Masters	F. F. White
James S. Matteson	C. M. Williams

The meeting was opened with prayer.

The minutes of the preceding meeting as printed were approved.

Record of mail ballot No. 9 on admission of members and associates was read and approved as part of the minutes.

In view of protests made against the election of two members the council resolved to give further consideration to the election of the two members concerned.

After consideration the council resolved to reject the application of one applicant against whom protest had been made, and to refer to the board of examiners the protest against another applicant with a request that the board report to the executive committee after consideration of the information which had been presented.

The report of the treasurer was received and referred to the auditors.

The report of the secretary was received and ordered printed.

It was resolved that the recommendation in the secretary's report that members of the institute should be encouraged to describe themselves as such was referred to the general meeting.

It was resolved that subscribers to the endowment fund whose subscriptions were overdue should be notified that these subscriptions will be considered due at the date of the next spring meeting of the council, Monday, April 12, 1920, and that attention be drawn to the fact that under article V of the constitution those in arrears will forfeit membership in the institute unless payment be made within five months thereafter.

It was resolved that in view of the high cost of printing and paper the 1919 *Year-book* be produced in condensed form following the style of the 1918 publication.

The report of the board of examiners was read and accepted.

The recommendations contained in the report relative to the importance of having a quorum of the board always available were referred to the incoming council.

It was resolved that the committee on education be instructed to collaborate with the board of examiners in the preparation of a list of textbooks for study preparatory to the examinations, and further that the committee be requested to present such report to the executive committee by December 1, 1919.

The meeting adjourned until 2 P. M.

Upon resumption of business at 2 P. M. a member of the institute appeared voluntarily to explain his connection with an audit company concerning which complaint had been made. There were no charges under consideration. A vote of thanks was accorded the member in question for his attendance.

The report of the executive committee was read and approved.

The opinion expressed by the executive committee that in the case of a vacancy in the board of examiners it could be filled by the executive committee was ratified.

Recommendation of the executive committee that members seventy years of age should be exempt from payment of dues after being ten years in membership was referred to the committee on constitution and by-laws.

The report of the committee on constitution and by-laws was referred to the general meeting.

The recommendation of the committee on professional ethics that the following rule of conduct be adopted was unanimously approved:

(11) "No member shall render professional service, the anticipated fee for which shall be contingent upon his findings and consequent results thereof.

"This rule shall be construed as inhibiting only service in which the accountant's findings or expert opinion might be influenced by considerations of personal financial interest in alternative findings or opinions."

The following amendment of rule I was adopted:

(1) "A firm or partnership, all the individual members of which are members of the institute (or in part members and in part associates, provided all of the members of the firm are either members or associates) may describe itself as "Members of the American Institute of Accountants," but a firm or partnership, all the individual members of which are not members of the institute (or in part members and in part associates) or an individual practising under a style denoting a partnership when in fact there be no partner or partners, or a corporation or an individual or individuals practising under a style denoting a corporate organization shall not describe themselves as "Members of the American Institute of Accountants."

Upon motion by the chairman of the committee on arbitration it was resolved that the committee on ethics be requested to consider the question—

First, whether a member of the institute employing an accountant in the employ of another member of the institute, in the absence of a definite contract specifying the amount of his compensation, may dispute the

amount charged for his services when such charge is within the amount ordinarily received by accountants for the services of their employees.

Second, whether any obligation rests upon an accountant who has furnished the services of an employee to a fellow accountant to await the collection of the account rendered against the client of the accountant to whom the accommodation has been extended, or whether he may reasonably expect the amount due him to be paid upon ordinary commercial terms.

The report of the committee on budget and finance was read and adopted.

It was resolved that the report of the committee on education should be accepted after expunging certain clauses.

The report of the committee on publication was read and accepted. The suggestions contained therein were approved.

In addition to the written report of the committee on increased membership the chairman briefly outlined the activities of the committee.

The report of the committee on subsidiary organizations was referred to the general meeting for consideration.

A communication from C. B. Williams suggesting the creation of a cost accounting section of the institute was referred for consideration to the general meeting.

It was resolved that the committee on federal legislation be requested to take action as soon as possible to obtain the same extension for the filing of corporation income tax returns in 1920 that was granted in 1919.

The meeting adjourned.

Regular Meeting, Thursday, September 18, 1919

The regular meeting of the council of the American Institute of Accountants was called to order at 10 A. M., Thursday, September 18, 1919, at the Hotel Sinton, Cincinnati, Ohio.

The following were present:

Waldron H. Rand, *president,* in the chair
A. P. Richardson, *secretary*

Harvey S. Chase	James S. Matteson
J. D. M. Crockett	Overton S. Meldrum
W. Sanders Davies	Robert H. Montgomery
John F. Forbes	Carl H. Nau
J. S. M. Goodloe	John B. Niven
Edward E. Gore	Ernest Reckitt
Elmer L. Hatter	E. G. Shorrock
William P. Hilton	W. A. Smith
J. Porter Joplin	Edward L. Suffern
Page Lawrence	Frederic A. Tilton
W. R. Mackenzie	F. F. White
J. E. Masters	C. M. Williams

A. P. Richardson was re-elected secretary at the rate of compensation provided in the budget.

The following were elected members of the executive committee for the ensuing year:

H. S. Corwin
W. Sanders Davies
J. E. Masters
John B. Niven
E. W. Sells

The following were elected to the board of examiners for the term of three years:

F. H. Hurdman
J. C. Scobie
Arthur W. Teele

It was resolved that any member of the board of examiners who shall fail to attend all meetings of the board of examiners during a period of six months shall cease to be a member of the board.

It was resolved that hereafter at annual meetings of the American Institute of Accountants arrangements should be made to hold meetings of representatives of state boards of accountancy and that notices of such meetings should be distributed prior to the date of the meeting.

The following were elected to the committee on professional ethics for the ensuing year:

Carl H. Nau, *Chairman*
J. D. M. Crockett
J. Porter Joplin
T. Edward Ross
Charles H. Tuttle

A supplementary report of the auditors was referred to the executive committee with power.

Upon suggestion by the chairman of the committee on professional ethics the following language was substituted for the present language of rule 9:

"For a period not exceeding two years after notice by the committee on ethical publicity no member or associate shall be permitted to distribute circulars or other instruments of publicity without the consent and approval of said committee."

The chairman of the committee on state legislation recommended that the Alabama law be accepted by the institute as satisfactory. The suggestion was approved.

It was resolved that the committee on professional ethics should be empowered to make changes in the language in the rules of professional conduct in order to simplify the phraseology without changing the meaning or purpose of any rule.

The meeting adjourned.

Income Tax Department

EDITED BY JOHN B. NIVEN

A conclusion, liberal in its interpretation, has been reached by the commissioner of internal revenue with regard to losses from depreciation or obsolescence of intangibles by distillers and liquor-dealers, as a consequence of the ratification of the prohibition amendment to the constitution. This conclusion is recorded in two letters published below, sanctioning the deduction of the demonstrable loss from this source of the value of assignable goodwill, trade-marks or trade brands. The amount of loss is determined by the value at March 1, 1913, or the cost of acquisition, depending on whether the intangibles were acquired or *established* prior to that date or acquired subsequently. Recognition that a deductible value may be proved for intangibles *developed* prior to March 1, 1913, establishes a precedent that might, conceivably, have far-reaching consequences. It contemplates the capitalizing of income and its relation to capital investment, and full statistical information on this point is required.

The time for deduction of the amount of loss is settled in the second letter, in which the period of obsolescence is finally made dependent on the constitutional amendment, instead of on the enactment of the war-prohibition measure. Because the series of state ratifications began in January, 1918, the period of amortization is set at the interval between January 31, 1918, and January 16, 1920, when the amendment becomes effective. The present value at January 31, 1918, of the income to be derived between these dates is said to be the value of the intangible assets at January 31, 1918,—although we presume the present value of the excess of that income over the normal return on capital is really meant—and this value is the loss to be pro-rated over the approximate period of two years. In addition, the excess of the full cost of the intangibles (or their value at March 1, 1913) over the value at January 31, 1918, may also be deducted in the first taxable year closed after January 31, 1918, as obsolescence actually accrued.

One new treasury decision (T. D. 2916) is published. It supplements, without superseding, the regulations on depletion deductions for timber. Value at March 1, 1913, must be determined in the light of conditions at that date, uninfluenced by such considerations as subsequent intensive developments in the industry, now enhancing the value; and the basis for depletion allowances must, as in other depleting assets, be unit cost. For this purpose the timber content must be calculated, if only by way of estimate, with the usual privilege of revising the calculation in the light of greater knowledge, and distributing the balance of the cost over the new aggregate quantity.

TREASURY RULINGS

(T. D. 2916, September 5, 1919.)

Market value of timber.

Providing for the addition of two new articles, regulations 45, in regard to the determination of the fair market value and quantity of timber.

The final edition of regulations No. 45 is amended by the insertion of two new articles to be known as article 234 and article 235, as follows:

Art. 234. *Determination of fair market value of timber.*—Where the fair market value of the property at a specified date in lieu of the cost thereof is the basis for depletion and depreciation deductions, such value must be determined, subject to approval or revision by the commissioner, by the owner of the property in the light of the most reliable and accurate information with reference to the condition of the property as it existed at that date, regardless of all subsequent changes, such as changes in surrounding circumstances, in methods of exploitation, in degree of utilization, etc. The value sought should be that established, assuming a transfer between a willing seller and a willing buyer as of that particular date. No rule or method of determining the fair market value of timber property is prescribed, but the commissioner will give due weight and consideration to any and all facts and evidence having a bearing on the market value, such as cost, actual sales, and transfers of similar properties, market value of stock or shares, royalties and rentals, value fixed by the owner for purposes of the capital-stock tax, valuation for local or state taxation, partnership accountings, records of litigation in which the value of the property was in question, the amount at which the property may have been inventoried in probate court, disinterested appraisals by approved methods, and other factors. For depletion purposes the cost of the timber or its fair market value at a specified date shall not include any part of the cost or value of the land.

Art. 235. *Determination of quantity of timber.*—Each taxpayer claiming a deduction for depletion is required to estimate with respect to each separate timber account the total units (feet board measure, cords, or other units) of timber reasonably known or on good evidence believed to have existed on the ground on March 1, 1913, or on the date of acquisition of the property, as the case may be. The taxpayer, according to his best knowledge and belief and in the light of the most accurate and reliable information, will estimate the number of units of timber actually present upon the specified date; this estimate will state the number of units which would have been found present by a careful estimate made on the specified date with the object of determining 100 per cent. of the quantity of timber which the area would have produced on that date if all of the merchantable timber had been cut and utilized in accordance with the standards of utilization prevailing in that region at that time. If, subsequently, during the ownership of the taxpayer making the return additional units of timber are found to be available for utilization as the result of the growth of the timber, of closer utilization of the timber, of the utilization of species of trees not formerly utilized, of underestimates of the quantity of timber available on the specified date, etc., which were not taken into account in estimating the number of units for purposes of depletion, or if it shall be found in the course of operation that timber included in the estimate is not merchantable as the result of deterioration through rot or otherwise, or that the original estimate was too great, a new estimate of the recoverable units of timber (but not of the cost or the fair market value at a specified date) shall be made and when made shall thereafter constitute a basis for depletion. In the selection of the unit or units of estimate the custom applicable to the given type of timber in the given region should be considered.

Allowance for obsolescence of goodwill, trade-marks, and trade brands in the case of distillers, dealers in liquors, etc.—Receipt is acknowledged of your letter of March 12, 1919, in which you request a ruling to the effect that distillers and dealers in liquors may for the year 1918 take a reasonable amount for obsolescence of goodwill, trade-marks, and trade brands, the value of which has been impaired or destroyed by prohibition legislation. In reply you are advised that a reasonable allowance for obsolescence of such assets may be taken by distillers and dealers in liquors against earnings between November 21, 1918, the date upon which the agricultural appropriation act, providing for war-time prohibition was enacted, and July 1, 1919, the date upon which the war-time prohibition is to become effective. To sustain a claim for a deduction for obsolescence in respect of goodwill, trade-marks, or trade brands, the taxpayer must show that the value of the property in question has been destroyed or will be destroyed not later than June 30, 1919, and that the taxpayer is not continuing in any similar trade or business. An allowance will be made only in respect of such assets as are assignable as distinguished from those attaching to the individuals owning or conducting the business or to the premises at which it is being or has been conducted. No allowance for obsolescence will be made in any case where, in connection with the operation of his prevous business, the taxpayer has developed a goodwill, trade-mark, or trade brand, that will be valuable in continuing a lawful business after June 30, 1919.

The values will be based on those as at March 1, 1913, if the goodwill, trade-marks, or trade brands were acquired os established prior to that date, or at the actual cost thereof, if acquired subsequent to February 28, 1913.

Information helpful in establishing the values would be of the following general character:

A. Where the goodwill, trade-marks, or trade brands were acquired prior to March 1, 1913:

1. The nature of business (whether distillers, wholesalers, or retailers, or a combination thereof).

2. Date of foundation of business and whether organized as an individual, partnership, or corporation. Also date and particulars of each change in the ownership or form of organization of the business, such as the admission or retirement of a partner or partners; the incorporation of a company and of each reorganization thereof.

3. In respect to the trade-marks or trade brands for which a deduction is claimed:

(a) The date established and by whom.

(b) The date of acquisition by the present owners.

(c) The price paid therefor and whether paid in cash or stock; if the latter, state the basis of the valuation on which the purchase price was determined.

(d) For each year from 1900 or the date of the establishment of the trade-mark or trade brand, if subsequent to that year to 1919 inclusive:

(I) Annual sales (quantity and amount).

(II) The gross profit on sales (i. e., the difference between the selling price and the cost price of the merchandise sold).

(III) The total expenses and losses of the business which, when deducted from the gross profit on sales, will produce—

(IV) The net income.

Where the records permit, the sales and gross profit on sales should be submitted for each class of merchandise sold and, if possible, for each trade-mark or trade brand in respect of which a deduction is claimed.

(V) The amount of capital invested in the business (i. e., capital or capital stock and paid-in or earned surplus and undivided profits) as at the beginning of each year.

(VI) The amount included in the invested capital at the beginning of the period in respect of goodwill, trade-marks, or trade brands and the date and amount of each subsequent addition to the goodwill, trade-marks, or trade brands.

(e) Full details of each offer to purchase any of the trade-marks or trade brands, setting forth in particular the date of each offer, by whom and on whose behalf made: the amount of each offer, and whether payable in cash or stock; and the date or dates on which the purchase price was proposed to be paid, and the amounts to be paid on each such date.

4. Where a deduction is claimed in respect of goodwill, as distinct from trade-marks or trade brands, the following information should be submitted:

(a) The date of acquisition, and from whom acquired.

(b) The amount paid therefor and whether paid in cash or in stock. If the latter, state the basis of the valuation on which the purchase price was arrived at.

(c) For each year from 1900 or the date of acquisition, if subsequent to that year, to 1919, inclusive.

(I) The annual sales of the business (quantity and amount) classified, if possible, as to the various kinds of merchandise sold.

(II) Gross profit on each class of merchandise sold, or if the records do not disclose the information, the gross profit of the business as a whole.

(III) Total yearly expenses and losses of the business which, when deducted from the gross profit on sales, will produce—

(IV) The net income from the business.

(V) The amount of capital invested in the business (i. e., capital or capital stock and paid-in or earned surplus and undivided profits), as at the beginning of each year.

(VI) The amount included in invested capital at the beginning of the period in respect of goodwill and the date and amount of each subsequent addition to goodwill, trade-marks, and trade brands.

(d) Full details of each offer to purchase the goodwill, setting forth in particular the date of each offer; by whom and in whose behalf made; the amount of each offer and whether payable in cash or in stock, and the date or dates on which the purchase price was proposed to be paid, and if on more than one date, the amount payable on each such date.

B. Where goodwill, trade-marks, or trade brands were acquired subsequent to February 28, 1913:

(1) Dates of acquisition of goodwill or of each trade-mark or trade brand.

(2) From whom acquired.

(3) Purchase price of goodwill or of each trade-mark or trade brand.

(4) Whether purchased for cash or stock; if the latter, state the basis of the valuation on which the purchase price was arrived at.

Similar information to that suggested in A—3d and 3e, and in A—4 should also be furnished for each of the five years prior to the date of acquisition, and for each year thereafter up to and including the year 1919.

C. In the case of goodwill, trade-marks, and trade brands acquired prior to March 1, 1913, a statement should be submitted showing the development of prohibition and local option laws within the territory of the taxpayer during the five years preceding March 1, 1913. Such statement should show each prohibition or local option law enacted by any State or other governmental unit within the business territory of the tax-

payer, and should also state the unsuccessful efforts at such legislation during such period. (Letter to Mr. Levi Cooke, Washington, D. C., signed by Commissioner Daniel C. Roper, and dated June 21, 1919.)

Allowance for obsolescence of goodwill, trade-marks, and trade brands in the case of distillers, dealers in liquors, etc.—This department has considered the request contained in your letter of June 23 last for a modification of the ruling relative to obsolescence of goodwill, trade-marks and trade brands, of distillers and dealers in liquors, the value of which has been impaired or destroyed by prohibition legislation, contained in this department's letter to you of June 21. The particular modification you desire is an extension of the period set forth in the ruling above referred to against the earnings of which the obsolescence may be taken as a deduction.

In reply you are advised (1) that distillers and dealers in liquors are entitled to make a deduction (based upon actual cost or fair market value as of March 1, 1913) from gross income, on account of depreciation or obsolescence of their intangibles, such as goodwill, trade-marks, trade brands, etc., such deduction being limited to assignable assets, the value of which has been destroyed by prohibition legislation, and (2) that in arriving at the taxable income for the first taxable year ending on or after January 31, 1918, the obsolescence fully accrued on that date is to be allowed as a deduction in computing the income subject to taxation under the Revenue Act of 1918, plus a further deduction of such proportion of the remaining value of the intangible assets as the interval between January 31, 1918, and the end of the taxable year bears to the total interval between January 31, 1918, and January 16, 1920, (unless at an earlier date the taxpayer discontinues his business, in which case such earlier date shall mark the close of the period), and (3) that for any taxable year following the taxable year just referred to a deduction in respect of the value of such intangible assets on January 31, 1918, based upon a ratable distribution will be permissible.

It is the opinion of the department that the ratification of the 18th amendment in the month of January, 1918, by the States of Massachusetts, Maryland, and Kentucky, was the first definite indication that the prohibition amendment would be ratified by the requisite number of State Legislatures, and therefore that on January 31, 1918, a computable portion of the costs of goodwill, trade-marks, trade brands, or the value thereof, on March 1, 1913, if acquired prior thereto (excluding any intangibles acquired since that date, the expenditures of which were deductible and had been deducted in computing income for tax purposes) had become obsolescent. On January 31, 1918, the intangible assets had an actual value, viz.: the then present value of the income to be derived therefrom between that date and January 16, 1920, or at an earlier date should the taxpayer discontinue his business prior thereto. This value as stated above should be distributed ratably over the period from January 31, 1918, to January 16, 1920, (unless at an earlier date the taxpayer discontinues his business, in which case such earlier date shall mark the close of the period). The excess of the cost of the intangibles or the value thereof, on March 1, 1913, if acquired prior thereto (subject to the exclusions mentioned above), over the value thereof, as of January 31, 1918, determined as outlined above, will represent the amount of obsolescence that was fully accrued on January 31, 1918. (Letter to Mr. Levi Cooke, Washington, D. C., signed by Acting Commissioner J. H. Callan, and dated August 19, 1919.)

Students' Department

EDITED BY SEYMOUR WALTON

(ASSISTED BY H. A. FINNEY)

The issue of THE JOURNAL OF ACCOUNTANCY for May, 1919, contains a very interesting article by William A. Paton on *Some Phases of Capital Stock,* in which some deductions are made with which this department cannot entirely agree.

DISCOUNT ON CAPITAL STOCK

Mr. Paton makes the claim that when a corporation sells its stock at a discount, it is a misnomer to call the discount an asset. It does not need any argument to show that he is right in this and also in his contention that the discount really belongs to the proprietary and liability side of the balance-sheet as a deduction from the capital stock item.

It is to the later treatment of the discount that we are inclined to object. He says in discussing the disposition that should be made of the discounts:

"If discounts are to be written off, then the concurrent charges must be to current net income or accumulated income.

"But what is the effect of such accounting procedure? Writing off discounts in this manner obscures two of the most important facts which a balance-sheet should show: (1) original proprietary investment (including additions made subsequent to the period of organization) and (2) accumulated earnings.

"Adams, in *Railway Accounting,* says:

"'The fundamental balances to which all accounting records contribute . . . are four in number, namely, the balance which measures the cost of the property, the balance which measures net operating revenues, the balance which measures the current surplus or deficit, and the balance-sheet statement of accumulated profit or loss. . . . They are guides for the judgment of the investor and a measure for those who desire to know the degree of prosperity which has attended the operation of a property. . . . The degree of confidence which may be placed in the integrity of the four balances named is one of the accepted tests of sound accounting.'

"Neither of these highly significant balances can be determined from a financial statement if any stock discounts have been written off. As stated above, when stocks are issued below par and par is retained as a balance-sheet fact, the original investment can be determined only by deducting the amount of the discount from the total par value of the outstanding capital stock or, in other words, by reading the capital stock and discount on stock accounts together. If a stock discount is eliminated by charges against income the balance-sheet certainly does not show the amount of the investment or the extent to which earnings have been retained in the business. Total proprietorship is still correctly stated, it is true, but the separation of the two important divisions of the proprietary equity is not maintained."

It appears to us that Mr. Paton has taken an entirely wrong view of the functions of a balance-sheet. It is true as he says that "the primary purpose of the balance-sheet in any case is to furnish essential informa-

tion about the financial status of a business enterprise to the manager, present and prospective stockholder, creditor and other interested parties," but it is not so clear that the elimination of stock discounts by charging them off against surplus is a practice inconsistent with this purpose, as he claims that it is. It is also true that the earning power of a concern is an important item. The mistake that he makes is in the assumption that a balance-sheet should show not only the financial status of a business, but also how it reached the condition that is now set forth.

The truth of the matter is that a balance-sheet is an exhibit of the condition of a business at a specified date. It is a snap-shot of the business as it is passing, and, like the photograph of a person, it tells nothing whatever of past history except the present results.

To illustrate how little information is to be gained as to the past from a study of the balance-sheet, let us assume that three companies A, B and C start in the same kind of business on the same day, each of them with a paid-in capital of $100,000.00. At the end of ten years their respective balance-sheets show the following credit balances:

	A	B	C
Capital stock	100,000.00	100,000.00	100,000.00
Surplus	15,000.00	25,000.00	120,000.00

According to Mr. Paton the information to be gained from these balance-sheet figures is that C has been by far the most prosperous company, while A has barely been able to hold its own. An examination of the income statements of these companies will show that this deduction is entirely wrong, for it will disclose the information that the net profits of each of the companies have been the same for the period, namely $120,000.00, and that A has paid dividends of $105,000.00, that B has a paid-in surplus of $25,000.00 and has paid out all its profits of $120,000.00 in dividends, and that C has paid no dividends at all. Absolutely the only information to be obtained from the balance-sheets is that the book values are respectively 115, 125 and 220 at the present moment.

A point which appears to be very important to Mr. Paton is the necessity of preserving a record in all subsequent balance-sheets of the amount of the original capital investment, but he does not state why this necessity exists, nor how he would show original investment in the present balance-sheet if the capital had been increased other than by the accumulated surplus.

There are only two important points to be considered by either creditors or stockholders, namely, the present condition of solvency as evidenced by the proprietary accounts of capital and surplus and the prospect of the continuance of a favorable condition by the ability to earn profits to a reasonably certain extent. No one statement will show both these points: both the balance-sheet and the revenue statement are necessary.

The charging off against surplus of the discount on stock does not affect the value of the balance-sheet as an exhibit of present conditions. In the example given by Mr. Paton, the two balance sheets are

Property	120,000.00	Capital stock	100,000.00
Discount on Stock	30,000.00	Surplus	50,000.00
	150,000.00		150,000.00

If the discount items were now extinguished the statement would appear as follows:

Property	120,000.00	Capital stock	100,000.00
		Surplus	20,000.00
	120,000.00		120,000.00

"Is this last statement a strictly legitimate balance-sheet? Would not the stockholder who read this balance-sheet naturally conclude that the original investment totaled $100,000, and that the company had accumulated profits to the extent of $20,000 when, as a matter of fact the original investment was only $70,000 and earnings retained in the business amounted to $50,000"?

The answer is that the stockholders would have no warrant to come to any such conclusion. As far as the balance-sheet is concerned the facts may have been that the original investment was only $50,000 fully paid in and that profits had been accumulated to the extent of $70,000, out of which a stock dividend of $50,000 had been declared. There are no end of other conclusions that might be made. The plain fact is that both balance-sheets give all the information that is possible to that form of statement. The only difference is that one gives the present proprietary interest as 100,000 — 30,000 + 50,000 and the other expresses it as 100,000 + 20,000. In either event, to find out how the $50,000 or the $20,000 is reached will necessitate a scrutiny of the surplus statement in order to ascertain whether any dividends have been paid or extraneous profits or losses have been made, since it is only operating profit that determines the actual earning power.

This is not a matter of merely academic value: it may seriously affect the interests of the stockholder in those states which make the holder liable to creditors for the discount on stock that has never been paid up in full.

An Illinois instance of this occurred in the case of a bicycle manufacturing company, a number of years ago. At the beginning of the big boom in that business a wealthy man was induced to buy a large block of original (not treasury) stock at a heavy discount. During the first two years the concern made unquestioned profits, out of which in addition to large cash dividends the directors declared a special dividend which extinguished the discount on stock account by a debit to surplus and a credit to discount on stock. When the tremendous slump occurred in the

bicycle business the concern lost so heavily that it could not pay its creditors, who sued the wealthy man for the amount of the discount that had been given him on his stock. They lost the suit, because it was easily proved that the discount had been charged off against a surplus that was a real one and that therefore the stock had been fully paid up out of earnings. It would have cost this man a good many thousand dollars if the directors had taken the other view of a balance-sheet.

This point will be made clear if we refer again to the two balance-sheets quoted. In the second one the capital stock appears as $100,000 fully paid up and the surplus as $20,000. Assuming that the surplus is genuine, the stockholders are now relieved of their liability to creditors for $30,000. If at this point the business goes to smash and there are losses aggregating $135,000, the stockholders will lose their investment but will not have to pay any more. If the entry had not been made by which the discount was extinguished and the stock thereby paid up, the first balance-sheet would be the correct one, showing a credit to surplus of $50,000 and a debit to discount on stock of $30,000. Charging off the loss of $135,000 will extinguish the surplus and will reduce the capital account to $15,000. It is too late now for the stockholders to claim that the stock had really been paid up at the time of the first balance-sheet quoted. They can console themselves with the thought that they have continued to show on the balance-sheets the original condition of the stock, but it is doubtful whether they would consider that this piece of useless information was worth quite as much as the $15,000 that they are now called upon to contribute, because they did not take the profits when they had the right to do so.

Treasury Stock

In his treatment of treasury stock Mr. Paton seems also to have overlooked some essential features. He correctly states that when treasury stock is acquired "the corporation has come into possession of its own stock, and this stock instead of being an asset is virtually a deduction from the outstanding capital stock, whether formally retired or not." This condition is acknowledged by all good accountants who do not list treasury stock as an asset in the balance-sheet, but deduct its par value from the total capital stock, carrying out the net stock as the outstanding amount. If the acquired stock is cancelled the amount is actually charged against the capital stock account and the outstanding stock is shown as a single balance, not as the net of two balances.

This is not the difference between Tweedledum and Tweedledee—it is rather the distinction between life and death. Treasury stock is like a plant that has been carefully removed from its usual position with its roots still attached and covered with earth. For the time being it is inert and has ceased to function as a plant, but it is not dead. It needs only proper

treatment to become an active, living plant again. Cancelled stock is like a plant that has been uprooted and left to die. It cannot be used again but must be replaced by an entirely new plant.

It is this latent life that is the important point about treasury stock, as well as the universally recognized advantage of its being available for sale at a discount when necessary. A company that owns treasury stock is in a position to increase its cash capital by selling the stock at once. Of course it has the same privilege with unissued stock, and to that extent there is no difference between treasury and unissued stock. If the stock has been cancelled it will be necessary to take the proper legal steps to increase the capital, if it is desired to replace it—a procedure which takes time and costs money.

It is when it is necessary to sell stock at a discount that the distinction between treasury stock and unissued original stock becomes important. In many states the transfer of property, especially mining claims, is recognized as giving full value for all the stock issued therefor. Having once been paid in full, this stock when acquired in the treasury may be sold at a discount without imposing any liability upon the purchaser.

The truth of the matter seems to be that while it is wrong to call treasury stock an actual asset, it is also wrong to treat it as being the same as either unissued or cancelled stock. There does not seem to be any possible objection to the practice followed by the best accountants of showing treasury stock as a deduction from the total capitalization. In the meantime it is temporarily carried on the books as a debit balance. It is as legitimate to carry a deduction from a liability as a debit balance as it is to carry a credit balance of reserve for depreciation, which is not a liability, but a deduction from a fixed asset.

This covers another point brought up by the article. Treasury stock must be carried at par. When a company pays $210,000 for stock of a par value of $140,000, it has not acquired an asset of $210,000, but has paid off two items of capital liability; $140,000 of capital stock and $70,000 of surplus. If the stock is ever re-issued it must be for its face amount of $140,000, a record of which must therefore be kept, but the surplus to be regained is not fixed. In fact the stock may be distributed at par among the remaining stockholders as a stock dividend and the surplus never be repaid. Therefore it is proper to charge off the $70,000 against the surplus, while the $140,000 is retained on the books. If the stock is sold to outside parties the amount realized above par would be credited to surplus, whether it were more or less that $70,000.

Transactions Between Partner and Firm

The strange reluctance that many persons show to acknowledge that a man may act in a dual capacity leads to some curious results when applied to the relation that exists between a partner and the firm of which he is a member. This is illustrated in the article entitled *Transactions Between Partner and Firm* in the Journal of Accountancy for July, in dealing with the borrowing of $20,000 by partner B from the

firm of A & B. It is stated that "if handled in the regular way the amount of the note would be charged to notes receivable, as in the case of a note made by an outsider." To this we absolutely object. It must be charged to an account such as "B note," which will plainly designate its character as a withdrawal for the time being of $20,000 of B's capital, as the article correctly claims that it is. The reason for putting the matter in the shape of a note instead of making a debit to B's capital account is not known to us. It may be that the firm does not at present make 6 per cent. on its capital and is therefore willing to let some one have the use of part of it for a year, when it will presumably be needed in the business again. In any event it is immaterial from an accounting standpoint whether the money is a loan to B or X, Y or Z. It is important from the standpoint of the firm's financial condition, and therefore it is imperative that it be clearly shown that there has been a withdrawal of part of the firm's capital, but that the withdrawal is for a limited time only, since it is represented by a note that is presumably to be repaid, instead of by a reduction of capital which may be permanent. The article hints at this, but does not say that it is obligatory.

The point with which we take issue is the reasoning in regard to the effect of the payment of interest by B. At the end of six months B owes $600 interest. As it is not convenient for him to pay in cash, he authorizes a charge to his capital account. The article then says:

"The concurrent credit in such a case is usually to the interest revenue account, and if this procedure is followed the entries giving effect to this agreement would be:

B capital	$600.00	
Interest...		$600.00

"The credit to interest is ostensibly a revenue item, but a careful examination of the case discloses the fact that no revenue whatever is involved and that the essence of this transaction is simply an adjustment between the two partners. This can perhaps be best shown by an examination of hypothetical balance-sheets as affected by this transaction alone.

"Let us assume that the balance-sheet just after B borrows the sum of $20,000 stands as follows:

Various assets	$60,000	A, capital................	$40,000
Loan to B................	20,000	B, capital................	40,000
	$80,000		$80,000

"Ignoring all other possible transactions, and assuming that A and B share income in proportion to respective investments, the item of interest revenue recognized in the above entries might now be divided and credited to the partners' capital accounts. The entries would be:

Interest	$600.00	
A, capital		$300.00
B, capital		300.00

"The balance-sheet, as affected only by these entries, would now appear as follows:

Various assets	$60,000	A, capital	$40,300
Loan to B	20,000	B, capital	39,700
	$80,000		$80,000

"A comparison of the two balance-sheets shows very clearly that no revenue whatever has been realized since asset and equity totals remain unchanged. The introduction of the interest account is evidently a bit of formal procedure which has nothing to do with actual income. The net effect of the whole transaction is an adjustment between the partners: an item of B's equity, $300, is transferred to A's capital account. Total proprietorship, however, is not affected, and hence no profit has been realized. B's equity has declined and A's equity shows a corresponding increase; the partnership as an enterprise, however, has neither suffered a loss nor realized a gain. The debit and credit entries to the interest account might indeed have been omitted; and in this case the transaction would be recorded as follows:

B, capital	$600.00	
A, capital		$300.00
B, capital		300.00

or simply,

B, capital	$300.00	
A, capital		$300.00

* * * *

It cannot be too strongly emphasized that a comparison of two balance-sheets does not show anything whatever in regard to the intermediate profit or loss. If it did, there would be proof of a loss of $600 if A had withdrawn that much of his capital to offset the amount withdrawn by B. The comparison as given above would also show that "no revenue whatever had been realized," if the firm had made net profits of $10,000 of which A had withdrawn $4,700 and B in one way or another had taken out $5,300. It would also show the same lack of revenue if the loan of $20,000 had not been made to B, but to an outsider X who had paid the interest in cash and B had withdrawn $600, which was charged to his capital account.

It might appear as if this latter condition could be paralleled by the simple expedient of having B pay his interest in cash, even if he afterwards withdrew $600 of his capital in money. But our author will not allow this, for he says, assuming that B did not withdraw anything:

"Even if B had actually paid in cash the amount of the interest due $600, at the end of six months, it is doubtful if this should be considered a revenue transaction from the point of view of the partnership. Certainly such a transaction has no reference to earnings or operation in the usual sense. There is, in this case, an actual increase in total assets; but if the concurrent credit is made to interest this means that the partnership has actually earned $600, and since B has a half interest in all income the amount of $300 must ultimately find its way to his capital account as

a credit. As far as B is concerned, then, the amount of $300 is virtually transferred from one pocket to another—from outside interests to the partnership—and really represents new investment. A has actually earned $300, however, as a result of permitting $10,000 of his funds to be used by B for six months. But has the partnership as an enterprise earned anything?

"The foregoing brief discussion would seem at least to indicate that there is good reason for viewing all transactions between partner and partnership as of a distinct type, and that to avoid misconceptions all such transactions might well be handled through special accounts."

This shows the curious results that follow from the unwillingness to allow B, the borrower, to have a status independent of B, the partner. There does not seem to be the same objection to having cash perform two functions. The half of the $600 which goes to A is revenue, but the other half of the same sum is new investment for B. Again, B personally pays $600 interest, of which our author says that A received $300 as a result of permitting B to use $10,000 of A's funds. This is not strictly true, because B borrowed $20,000 from the firm, not $10,000 from each of two partners, as we will show later. But allowing the point for the time being, it must be conceded that B paid the other $300 to some one for the use of the other $10,000. If not, what did he pay it for? The fact that $10,000 of B's money was lent to some one entitles B to the interest on it. That B pays $600 out of one pocket and receives $300 in another pocket does not prove anything except that the two pockets represent two entirely different personalities from an accounting standpoint. B, as a partner, is deprived of the use of his share of the $20,000; he is in exactly the same position as A, and he is equally entitled to a recompense. That he has to get it out of his own payment of interest does not change the situation.

That B did not borrow $10,000 from each of the two partners would be clear if the division of profits were on the basis of A 60 per cent. and B 40 per cent. In that case A would receive $360 and B only $240, which means that B was obliged to pay A interest at the rate of 7.2 per cent., but received only 4.8 per cent. on his own half.

Let us take an analogous case. B is a contractor who uses a large amount of the material dealt in by the firm of A & B, of which he is an equal partner. He carries out a contract on which he makes $25,000. On the material which he bought from A & B the firm makes a profit of $10,000. Everybody agrees that A is entitled to $5,000 as a profit of the firm, but those who agree with our author claim that B could not have also made the same profit, because he was himself the source from which the profit came. Or if one does not so claim, he should, to be consistent. What is B to do? He knows that he has received from the firm $5,000 in money or credit that he did not put into it. His common-sense tells him that as a member of the firm he has made that much profit in spite of the fact that he as a contractor was the cause of the profit, but he is told that common-sense is not recognized as a guide by some accountants and that he must open a special account for the $5,000.

After due deliberation he decides to credit the amount to an account called "manna," on the ground that it must have dropped from heaven, since there appears no earthly way of accounting for it.

Everyone recognizes the fact that a person who deals with a corporation in which he holds stock is acting in a dual capacity, but there are too many who cannot see that the same principle holds good in the case of a person and the firm in which he is a partner.*

A Good Suggestion

Editor, Students' Department:

Sir: The writer a few days ago started to index The Journal of Accountancy since Volume 1, No. 1, and has a suggestion to offer fellow students. Let them do likewise, and I venture to state that they will not complete an index without having virtually been forced to stop "by the wayside" as it were, to read various interesting and timely articles. A student will come across articles and hints that he did not dream existed in these valuable volumes. Try it.

Yours very truly,
W. O. Hoag.

Miles City, Montana.

This is an excellent idea. In making such an index it is better to err on the safe side by listing every subject discussed, although not the main subject of an article. In fact the subsidiary subjects are the most important ones to be noted, since the main subjects can be found without much trouble in the indexes in each volume.

A card index is the best, because it can be added to indefinitely. The same card can be used for all the references to any one subject. Even if a person does not possess all the volumes such an index would be valuable. With even a few volumes it is often difficult to trace some article, still more some portion of an article, which one may wish to consult.

Stock Not Fully Paid

Editor, Students' Department:

Sir: Will you kindly define "stockholder." In other words, is a person a stockholder from the date of subscription or from the date when stock certificate is issued?

Is a stockholder entitled to dividends on the par value of his stock accrued from the date of subscription, or is he only entitled to such dividends from the date when the stock is fully paid?

Is it legal for directors of a corporation to pay dividends, or to allow them to accrue to subscribers on the par value of the stock subscribed for but not fully paid?

There is no Missouri statute covering this point.

Yours very truly,
J. C. M.

Kansas City, Missouri.

A stockholder is a person who owns an undivided equity in the net assets and profits of an incorporated company. At the date of his subscription he merely acquires the right to become a stockholder. He be-

* The above was written before the correspondence in regard to the stock discount appeared, but was crowded out by the discussion of the examination questions. It is published now to put us on record, although to a certain extent it duplicates Mr. Boyle's letter.—*Editor, Students' Department.*

comes a stockholder when he has made any payments called for by terms of subscription. These terms may deprive him of his right to vote if he is in arrears, and may even forfeit what he has already paid, if he continues in default after due notice.

A person is not a full stockholder until he has paid for all his stock. Title to the stock consists of the credit on the stock ledger. The stock certificate is the receipt for that credit, and is not the stock itself. A person may own stock without having a certificate.

A dividend must be voted by the directors before any one has a right to it. Then it depends on conditions. If all the stock is being paid in instalments, the dividend may be made payable on the par value or on the amount paid by each one, and it may be paid in cash or may be applied on the unpaid instalments. Or the directors may declare a dividend payable only to those who are not in arrears.

There are so many different conditions governing the dividends as determined by the board of directors that it is impossible to note them all.

Interest as an Element of Cost

Editor, Students' Department:

Sir: I would appreciate very much your opinion on the following:

A firm I am interested in conducts chain stores (retail) and when purchasing stock and fixtures for them, gives notes in payment. It also purchases the real estate and building in most cases, giving notes in part payment, which sometimes extend over a period of 5 years.

The question at issue is: Should the interest on these notes, which is paid at the same time each note matures and is taken up, be charged to interest account as an operating expense, or be properly charged to cost of merchandise, store equipment and fixtures and real estate and buildings accounts?

Very truly yours,

E. G.

The only way in which interest could be legitimately charged to the value of any articles mentioned would be to prove that the articles were more valuable because they were paid for with notes that bore interests than they would have been if they had been bought for cash. Of course, this is an untenable proposition.

In any event, interest is not an operating expense. Only those items are operating expenses which are necessities of the business. A concern with sufficient capital need not pay interest, therefore interest is caused by lack of capital, not by operating processes. After operating profit is ascertained, interest is deducted as a financial expense.

Future Value of Real Estate

Editor, Students' Department:

Sir: A manufacturing corporation carries on its books at the present time land at $75,000 and buildings at $250,000. The location is unsuited to the company's present and apparently immediate future needs. A large tract of land has been acquired and modern buildings are now being erected thereon to house new equipment. The company has an opportunity at the present time to dispose of the old buildings and the ground

they occupy for $150,000 in cash and occupy the building for another ten years at an annual rental not to exceed ten per centum of the selling price plus the maintenance charges.

The company is sound financially and prosperous to the extent that a large portion of its earnings would be taxed at the highest rates of income and excess profits taxes. The management is divided as to which is the better plan, to sell now and sustain a loss of $75,000 or keep the property for a period of ten years and then try to dispose of it.

Assuming that the property could be disposed of at the end of ten years at its present book value, less the usual depreciation charge on the buildings, which would be the better plan: sell now for $150,000 in cash and pay rent or sell at the end of ten years at the figure above stated?

The writer has been asked to draw up a brief statement of both propositions and has done so from his point of view. I would be extremely grateful, however, if you would inform me either through the next issue of your JOURNAL or by direct reply of the correct solution from your point of view.

Yours truly,
T. W. L.

There are several elements in the question submitted about which no information is given, that would affect the answer. Some of them are:

Is the proposed rental a fair one, or is it more or less than the property ought to yield?

Can the company use the old plan advantageously, in view of the fact that it is building a new factory?

If not, can it rent the property at the same rate it pays or at a higher rate?

Is the valuation of $250,000 placed on the buildings cost or has adequate depreciation been charged off?

What rate of depreciation is to be allowed on the buildings for the ten years?

Supposing that the rental is a fair one, and that the company can use the property, there would be no gain or loss in holding the property. If the rate of depreciation on the buildings is 5 per cent. on the diminishing value, the buildings would be carried at $149,684.24 at the end of ten years. The depreciation of $100,315.76 is not a loss. It is an expense for rent, being presumably included in the word "maintenance." If not so included, it should be added before answer is made as to the fairness of the rental.

Adding the land at $75,000 to the depreciated value of the buildings, $149,684.24, the amount realizable at the end of ten years would be $224,684.24.

The problem then resolves itself into deciding whether it is better to have $150,000 now or $224,684.24 at the end of ten years. This cannot be definitely answered, unless we know what rate of interest can be realized by present cash, if it is accepted, or what rate the company itself will allow, if the $150,000 is credited to property reserve and is credited with interest yearly on the increasing balance, the land and buildings accounts remaining as they are, less depreciation.

If interest on the reserve is at 5 per cent, the reserve or the invested funds at the end of 10 years will amount to $244,334.25. If the interest is 4 per cent., the accumulation will yield $222,036.60. In one case there is a profit of $19,650.01 and in the other a loss of $2,647.64.

As there is no certainty that the property can be sold at the end of ten years, and as the results of the lump sum if invested in Liberty loan 4¼ per cents are certain, I should advise the acceptance of the $150,000 provided the answer to the questions asked do not disclose conditions that would change the calculations.

At the same time it must be remembered that the question of future real estate values is one that must be left to individual judgment. No one can be positive about the future of such property.

Depreciation Reserve in Sale of Factory

Editor, Students' Department:

Sir: Will you kindly give me some information regarding the following transactions?

The company by which I am employed (we will call it the Jones Company of Illinois) has bought out a factory in the state of New York (the Jones Company of New York), which is a separate corporation entirely, although the stockholders of both companies are the same.

The books of the New York company have been turned over to me to close. The plant and equipment account is shown on the New York books at $47,320.27, and in the sale to the Illinois company, the price is shown as $31,349.69.

I have made the following entry to cover this.

Jones Company of Illinois, d.	$31,349.69
To sundry gains	31,349.69
Sundry losses, dr.	47,320.27
To plan and equipment account	47,320.27

Is the above correct?

Two years' depreciation have been entered on the New York books, $4,732.02 having been credited to depreciation reserve.

In closing the books, I have been also charged depreciation (which on the books in question is thrown directly into profit and loss) for one-third of a year, as the sale is dated as of April 30th, and I have credited depreciation reserve with $788.67.

Should any more depreciation reserve than for the two years and four months be entered?

It has been suggested to me that the depreciation reserve account must balance the plant and equipment account. If this is the case, should a further entry be made to make the balance of the depreciation reserve $47,320.27, the full amount of the original plant and equipment account?

When the proper entries have been made for the depreciation reserve, all the accounts will be closed on the New York books except the following:

Depreciation reserve.
Capital stock
Undivided profits
Jones Company of Illinois.

The accounts will be transferred to our general officers to take care of on their private ledger.

Will you kindly advise me what is the final disposition of the depreciation reserve account when a business is closed out entirely?

I have tried to find the information desired in the text-books at my command, but none of them seems quite to fit the case. If this informa-

tion is outside the jurisdiction of your department, perhaps you will be kind enough to refer me to some text-book which will help me.

Very truly yours,

M. C. C.

You have made an error in stating the plant and equipment account as shown on the books. The value on those books was not $47,320.27 but $42,588.25. The depreciation reserve of $4,732.02 should have been charged and plant and equipment credited before any entry transferring the latter account was made. You have left the reserve account on the New York books without any excuse for its existence, since there is no asset to which it applies. An account of reserve for depreciation is only the credit side of the asset account, kept in a separate account for convenience, so that original cost may not be lost sight of. In view of the sale, there was no occasion for the entry of $788.67. If it is left as made, the value of the plant and equipment is reduced to $41,799.58.

You say that the Illinois company bought the New York factory. This is too indefinite a statement. As the New York books are to be closed, you may mean closed out, winding up the New York company, or only closed as to profit and loss. As you say that the stockholders of the two companies are the same, it is to be presumed that the Illinois company bought the New York company—that is, the stock of that company which still continues to exist. This is indicated also by the list of accounts still open on the New York books.

The entries for the sale of the factory mean that the Illinois company made a present of $31,349.69 to the New York company and that the latter company wrote off its plant and equipment as a loss of $47,320.27 in spite of the fact that $5,520.69 had already been written off.

The proper entries would have been:

Jones Co. of Illinois	$31,349.69	
Plant and equipment		$31,349.69
To record sale to Illinois company as per minutes of directors on............1919.		
Reserve for depreciation	$5,520.69	
Plant and equipment		$5,520.69
To bring latter account to its real balance		
Undivided profits (should be surplus)	$10,449.89	
Plant and equipment		$10,449.89
To write off loss on sale of plant.		

We do not know what other entries there may be, because we do not know what was done. The above apply only in case the factory was bought, but they do not show any payment for it.

If, when you say that the depreciation reserve should balance the plant and equipment account, you mean that it should be the same amount, you are wrong. This would not be the case until the physical deterioration of the plant was equal to its total value—in other words, until the plant was all gone. Those who made the suggestion probably meant what we have said, that the reserve was part of the plant and equipment account.

Book Reviews

NEW COLLECTION METHODS, by E. H. Gardner. *Ronald Press Company,* New York. 467 pp.

A public accountant can hardly be expected to undertake the task of installing a modern credit department, yet as his diagnosis of a moribund business may indicate "poor collections" to be the chief cause of the patient's alarming condition the prescription of Mr. Gardner's book, *New Collection Methods,* might well be in order. As in medicine, the business doctor may not always be able to work a cure but he can frequently point out the way; after which it is up to the patient. All of which is to say Mr. Gardner's book is certainly worth a place in the public accountant's working library—if only to suggest ways of collecting his own bills.

The fact that the book is in its second edition indicates sufficiently that it fills the need of a practical manual of procedure for the credit man. Mainly it is descriptive of methods and forms used by some of our most successful wholesalers and mail-order houses in making collections promptly and systematically. Ordinarily this would furnish dry reading to those not interested in the subject, but Mr. Gardner has succeeded in making it interesting to the general reader by his study of the practical psychology underlying the various methods of prodding reluctant debtors.

The only consistent thing about human life apparently is its inconsistency. Therefore, perhaps one should not be surprised by curious contradictions one encounters in the book, such as the statement "to go to a cash basis would set back the clock by centuries" (p. 26). The aim of the credit department being to shorten the terms of credit as much as possible, it would be logical to consider the cash basis as the ultimate goal to be attained. If it is argued that the retailer should have a reasonable time in which to turn over his stock, the obvious retort is that he should have either sufficient working capital of his own to tide him over or else look to the banks which are the proper purveyors of credit. Again, after reading the praises of high moral standing and frankness in commercial life, it jars a bit to note the instances of saying one thing while meaning something entirely different as shown in some of the form letters which Mr. Gardner quotes. This may be tact but it irresistibly reminds one of the cynical definition of tact—"the ability to lie like a diplomat." Still, if business is competition and competition is but a form of war, we must give the credit man his due for endeavoring in his field to eliminate the frightfulness of the verbal bludgeon in favor of the more skillful and no less deadly play of the rapier.

W. H. L.

NEW MODERN ILLUSTRATIVE BOOKKEEPING, by Charles F. Rittenhouse, C. P. A. *American Book Company,* New York. 152 pp.

Modern Illustrative Bookkeeping is the best kind of elementary text because it emphasizes principles and thus trains pupils to apply principles

to unforeseen combinations of facts arising in practice. Bookkeeping is not presented merely as a routine and taught through the medium of a complete set of transactions. Principles are presented and are illustrated by numerous examples. After a discussion of accounts and the ledger, each usual book of original entry is considered in detail. The text contains forms of business documents and practical suggestions which cannot fail to be of value to many bookkeepers after the completion of their elementary course.

HAROLD DUDLEY GREELEY.

Alabama C. P. A. Law

Following is the text of the Alabama law providing for the issuance of certified public accountant certificates. The law was approved February 17, 1919.

An act to regulate the practice of public accountancy by creating a state board of public accountancy, fixing its fees and emoluments, to prohibit the unlawful use of words, letters or other means of identification by unauthorized persons, as certified public accountants under this act, and to provide penalties for the violation of its provisions.

Be it enacted by the legislature of Alabama:

Section 1. That any citizen of the United States, residing or having a place for the regular transaction of business in the state of Alabama, being over the age of twenty-one years, of good moral character, and who shall have received from the state board of public accountancy a certificate of his qualifications to practise as an expert public accountant as hereinafter provided, shall be styled or known as a certified public accountant, and it shall be unlawful for any other person or persons to assume such title or use any letters, abbreviations or words to indicate that such a one using same is a certified public accountant.

Section 2. That within 60 days after the passage of this act, the governor of the state of Alabama shall appoint three persons, one of whom shall be a reputable attorney-at-law, the other two shall be skilled in the practice of accounting and actively engaged therein in this state. Said appointment shall be one for a term of two years, one for a term of three years and one for a term of four years, said members to establish and constitute the Alabama state board of public accountancy. At the expiration of the term of any member of said board, the governor shall appoint his successor to serve for a term of four years, or until such time as his successor may be appointed and qualified. All vacancies created by death, resignation or otherwise shall be filled by appointment by the governor for the unexpired term. The members of the Alabama state board of public accountancy, the first board excepted, shall be appointed from the holders of certificates issued under and by virtue of this act, except one member of said board shall be a reputable attorney-at-law. Within fifteen days after their appointment the members of said board shall take an oath before any person lawfully authorized to administer oaths in this state, to faithfully and impartially perform their duties as members of said board, and the same shall be filed with the secretary of state.

Section 3. That the Alabama state board of public accountancy is hereby authorized and empowered to adopt a seal, to adopt and enforce all necessary rules, regulations, by-laws and etc. to govern its proceedings

and to regulate the mode of conducting examinations to be held under this act, provided said examinations shall be held at least twice a year in the city and county of Montgomery, state of Alabama. The examinations shall cover a knowledge of the "theory of accounts," "practical accounting," "auditing," "commercial law as affecting accountancy," and such other branches of knowledge pertaining to accountancy as the board may deem necessary to maintain the highest standard of proficiency in the profession of public accounting. The board shall have power and authority to issue certificates under the signature and the official seal of the board as provided in this act, and the said board shall be required within 30 days after each examination to notify applicants who may have failed therein, of such failure, in what branch or branches deficiency was found.

Section 4. That the Alabama state board of public accountancy shall be authorized to charge each applicant for a certificate a fee not to exceed the sum of $25.00, the same to be paid when the application is filed. Out of the funds collected under this act shall be paid the expenses of the said board, including mileage, hotel expenses and an amount not to exceed $10.00 per day, for the time expended in conducting examinations and issuing certificates, provided no expense incurred by said board shall ever be charged against the funds of the state.

Section 5. That the Alabama state board of public accountancy may, in its discretion, register any certified public accountant's certificate issued under the law of another state, and may issue to such certified public accountant a certificate which shall entitle the holder to practise as such public accountant and to use the abbreviation, "C.P.A." in this state, provided that the state issuing the original certificate grants similar privileges to the certified public accountants of this state. The fee for registration shall not exceed the sum of $25.00.

Section 6. That the Alabama state board of public accountancy may waive the examination of any person possessing the qualifications mentioned in section 1, of this act, first, who has been at least for five years actively employed as an accountant, who shall apply in writing to the board for such certificate, provided that said application shall be accompanied by an affidavit before a notary public or a justice of the peace, giving the name or names of the firms or corporation by whom he has been employed for the past five years, and provided said application be filed within six months after the passage of this act, and second, who has practised for more than three consecutive years before the passage of this act on his own account as a public accountant, and who shall apply in writing to the board for such certificate within six months after the passage of this act. A fee of not exceeding $25.00 shall be collected for each certificate so issued.

Section 7. That the Alabama state board of public accountancy may revoke any certificate issued under this act, or may cancel the registration of any certificate registered under this act, for any unprofessional conduct of the holder of such certificate, or for other sufficient cause, provided that written notice shall have been mailed to the holder of such certificate twenty days before any hearing thereon, stating the cause for

such contemplated action and appointing a day for a full hearing thereon by said board, and provided, further, that no certificate issued under this act shall be revoked until such hearing shall have been heard.

Section 8. That if any person shall represent himself to the public as having received a certificate as provided in this act, or shall assume to practise as a certified public accountant, or use the abbreviations, C.P.A. or any similar words or letters to indicate that the person using the same is a certified public accountant, without having received a registration certificate as provided in this act, or if any person having received a certificate as provided in this act, and having thereafter lost such certificate by revocation as provided in section 7, thereof, shall continue to practise as a certified public accountant, he shall be deemed guilty of a misdemeanor and upon conviction thereof shall be fined not less than $100.00 nor more than $500.00 and may be sentenced to hard labor for the county in the discretion of the court, for not longer than six months.

Section 9. That all laws and parts of laws in conflict with the provisions of this act be and the same hereby are repealed.

Section 10. This act shall take effect upon its approval by the governor.

Washington State Board of Accountancy

The Washington State Board of Accountancy has organized as follows for the current fiscal year: R. D. White, chairman; Alfred Lister, vice-chairman; George Shedden, secretary-treasurer; William McAdam; E. J. Miner.

G. Charter Harrison and Eric A. Camman announce the dissolution of the partnership of G. Charter Harrison & Co. G. Charter Harrison will continue in practice under his own name at 31 Nassau street, New York.

W. McK. Evans announces that Clarence O. Evans has become associated with him under the firm name of W. McK. Evans & Co., with offices in the *Times-Dispatch* building, Richmond, Virginia.

Webb, Read & Company and George A. Touche & Co. announce that their practices in Canada have been amalgamated and will be carried on in future under the firm name of George A. Touche & Co.

Erich W. Kath and W. E. Baughman announce the formation of a partnership, under the firm name of Kath & Baughman, with offices at 1417 Schofield building, Cleveland, Ohio.

Wilson & Heye, Rochester, New York, announce the opening of offices at 410 South Salina street, Syracuse, New York, and 3 East 44th street, New York.

Samuel Namson announces the formation of a partnership with Frederick A. Young with offices in Higgins building, Los Angeles, California.

J. W. Cufley & Co. have established connections in Philadelphia to be known as Cufley, Browne & Company, with offices in the Penn Square building.

MacHugh & Garretson announce the opening of offices in Hobart building, San Francisco, and Syndicate building, Oakland, California.

Shannon, Reynolds & Bone announce the opening of an office at 504 Volunteer State Life building, Chattanooga, Tennessee.

Barrow, Wade, Guthrie and Co., New York, announce that E. Denison Hilton has become a partner in the firm.

Daniel H. Bender announces the opening of offices at 136 South Sixteenth street, Philadelphia, Pennsylvania.

Arthur M. Flynn & Co. announce the opening of offices in Tacoma building, Tacoma, Washington.

Caddie H. Kinard announces the opening of an office at 107 Main street, El Dorado, Arkansas.

Smith, Brodie & Lunsford announce the opening of offices in Mayo building, Tulsa, Oklahoma.

Joseph B. Cohan announces the opening of an office in Slater building, Worcester, Massachusetts.

R. A. Weston announces the opening of an office at 191 Church street, New Haven, Connecticut.

Walter K. Smith announces the opening of an office in Masonic Temple, Mobile, Alabama.

Mackay, Irons & Co. announce that J. C. Gray has been admitted to the firm.

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Introduction to Actuarial Science*

By H. A. Finney

In the more comprehensive meaning of the term, actuarial science includes an expert knowledge of the principles of compound interest as well as the laws of insurance probabilities. Public accountants, however, are usually interested only in the interest phases of actuarial science, leaving the application of the laws of insurance probabilities to the actuary, who ascertains the measurement of risks and establishes tables of rates. This discussion of actuarial science will, therefore, be restricted to the phases thereof which deal with compound interest.

There seems to be a more or less prevalent belief that the exacting of compound interest is illegal, and that this illegality makes the mathematics of compound interest an impractical matter of purely academic importance. While it may be illegal in some jurisdictions for a creditor to charge the debtor interest on unpaid interest, there can be no legal restriction against the collection and reinvestment of the interest. In fact, the mathematical theory of investment is based on the assumption that all interest accretions become themselves a part of the investment, being converted at periodical intervals into interest-earning principal. The compound interest basis is the only scientific one where the accumulation or reduction of an investment extends over a series of periods. It is with compound interest, therefore, and not with simple interest, that actuarial science deals.

Interest is the increase in investment or indebtedness caused by the use of money or credit. The rapidity and extent of the increase depend on the factors of interest, which are rate, frequency and time.

The rate is usually expressed in terms of percentage and measures the fraction by which the investment is increased at each date of conversion of interest. Thus, a rate of 5% per period indicates that the interest each period will be .05 of the investment at the beginning of the period; or, stated in another way, the investment at the end of the period will be 1.05 times the investment at the beginning of the period. Expressing the decimal interest rate by the symbol i (for instance, $.05=i$), the interest earned during any period may be computed by multiplying the investment at the beginning of the period by i; and the increased investment at the end of each period may be computed by multiplying the investment at the beginning of the period by $1+i$. The symbol $1+i$ is called the ratio of increase, because it measures the ratio existing between the investment at the beginning and the investment at the end of each period.

The frequency is the length of the period in years, months or days between the dates of interest conversions. It is evident that the frequency of compounding will materially affect the rapidity with which an investment increases. For instance, an investment of $1.00 for one year will amount to more if the loan is at 1½% per period of 3 months than if at 6% per period of 12 months.

Increase during one year in investment of $1.00 at 1½% per period of 3 months:

	1.00	Original investment
Multiply by	1.015	Ratio of increase
	1.015	Investment end of 3 months
" "	1.015	
	1.030225	" " " 6 "
" "	1.015	
	1.045678	" " " 9 "
" "	1.015	
	1.061364	" " " 12 "

Increase during one year in investment of $1.00 at 6% per period of 12 months:

	1.00	Original investment
Multiply by	1.06	Ratio of increase
	1.06	Investment end of 12 months.

One frequently sees interest tables in which the interest rates are stated as a certain per cent. per annum. It is better to express the rate as a certain per cent. per period, because, when the compounding occurs more frequently than once a year, the effective rate earned during a year is really greater than the nominal rate. Thus, in the foregoing illustration, the loan is made at 1½% per period of three months. The customary statement, however, is that the rate is 6% a year compounded quarterly. The nominal rate is 6%, but since the investment increases during the year from 1.00 to 1.061364, the effective rate per annum is 6.1364%.

The time is the total number of periods over which the investment extends. It is customary in commercial parlance to state the time as a certain number of years, but as a matter of principle the time is a certain number of periods which may be of any duration, and the rate should, therefore, be stated as the rate per period. For instance, if money is lent at 6% per annum for 4½ years, compounded semi-annually, the time (represented by the symbol n) is 9 periods, and the rate (represented by i) is 3% per period.

Each dollar of an investment increases in the same ratio as every other dollar; therefore, in compound interest computations, it is customary to compute the required value on the basis of a principal of $1.00, and to multiply by the number of dollars in the principal.

The Amount of 1.

Since interest increases the investment, the fundamental problem in interest is the computation of the amount to which an investment will increase in a given time. It has already been noted that the increase depends upon i (the rate per period) and n (the number of periods). During each period the investment increases in the ratio of $1+i$. At 6% per period, an investment of 1 will amount, at the end of 1 period, to 1.06, or $1+i$; during the next period the investment will increase to 1.06, the investment at the beginning of the period, multiplied by 1.06, the ratio of increase, or to 1.1236, which is $(1+i)^2$; at the end of the third period the investment will amount to 1.1236, the investment at the beginning of the period, multiplied by 1.06, or 1.191016, which is $(1+i)^3$. Or, stated generally, the investment will amount, at the end of n periods to $(1+i)^n$.

This means that the ratio of increase is raised to the *n*th power, or that the amount is a product obtained by using the ratio of increase as a factor as many times as there are periods. Representing the amount of 1 by *a*, the formula is

$$a=(1+i)^n$$

When compound interest tables are available, the amount can be determined by reference to them. A table of amounts appears as follows:

AMOUNT OF 1 AT COMPOUND INTEREST

Periods	3%	3½%	4%	4½%	5%
1	1.030000	1.035000	1.040000	1.045000	1.050000
2	1.060900	1.071225	1.081600	1.092025	1.102500
3	1.092727	1.108718	1.124864	1.141166	1.157625
4	1.125509	1.147523	1.169859	1.192519	1.215506
5	1.159274	1.187686	1.216653	1.246182	1.276282
6	1.194052	1.229255	1.265319	1.302260	1.340096
7	1.229874	1.272279	1.315932	1.360862	1.407100
8	1.266770	1.316809	1.368569	1.422101	1.477455

When interest tables are not available, the amount is easily computed by logarithms. To illustrate: what is the amount of 1 at 6% compound interest for 4 years, compounded semi-annually?

$$a=1.03^8$$

The logarithm of 1.03 is	.012837
To raise to the 8th power multiply by	8
The product is	.102696, which is

the logarithm of 1.266764, or 1.03^8.

An interest table states this amount as 1.266770

When neither an interest table nor a table of logarithms is available, the amount may be computed by repeated multiplications. The required amount is the product obtained by using the ratio of increase as a factor as many times as there are periods. Thus, 1.03^8 may be computed as follows:

1.03				
1.03				
1.0609	Amount at end of 2 periods			
1.03				
1.092727	"	"	3	"
1.03				
1.125509	"	"	4	"
1.03				
1.159274	"	"	5	"
1.03				
1.194052	"	"	6	"
1.03				
1.229874	"	"	7	"
1.03				
1.266770	"	"	8	"

This work can be materially reduced by recognizing the principle that the multiplication of any two powers of a number results in a power represented by an exponent equal to the sum of the exponents of the powers multiplied. For instance, $1.0609 = 1.03^2$.

Now since 1.0609 contains 1.03 twice as a factor, the product of 1.0609 multiplied by 1.0609 will contain 1.03 four times as a factor. Thus

$$1.0609 \times 1.0609 = 1.125509 = 1.03^4$$

The eighth power can be obtained thus:

	1.125509	The 4th power		
multiplied by	1.125509	"	4	"
	1.266770	"	8	"

The seventh power can be obtained by multiplying any powers, the sum of whose exponents is 7.

Thus:				Or:			
1.092727	The 3rd power			1.0609	The 2nd power		
1.125509	"	4th	"	1.159274	"	5th	"
1.229874	"	7th	"	1.229874	"	7th	"

This principle may be applied when it is desired to determine an amount beyond the scope of an interest table. Thus, if an interest table extends only to 20 periods, the amount for, say, 75 periods, can be computed by multiplication of the amounts for periods within the scope of the table, as follows:

20th x 20th x 20th x 15th=75th

Or the principle may be applied when an amount must be computed with no table available. For instance, $(1+i)^{35}$ may be computed thus:

$$(1+i) \times (1+i) = (1+i)^{2}$$
$$(1+i)^{2} \times (1+i)^{2} = (1+i)^{4}$$
$$(1+i)^{4} \times (1+i)^{4} = (1+i)^{8}$$
$$(1+i)^{8} \times (1+i)^{8} = (1+i)^{16}$$
$$(1+i)^{16} \times (1+i)^{16} = (1+i)^{32}$$
$$(1+i)^{32} \times (1+i)^{2} = (1+i)^{34}$$
$$(1+i)^{34} \times (1+i) = (1+i)^{35}$$

The Compound Interest

Since the interest increases the investment, the difference between 1 and the amount of 1 is the compound interest. Representing the compound interest by the symbol I,

$$I = a - 1$$

Illustration: required the compound interest on 1 at 6% per annum for 4 years, compounded semi-annually?

The amount of 1.03^{8} has already been computed as 1.266770.

Then 1.266770—1=.266770 the compound interest.

The Rate

When the investment, the amount and the time are known, the rate can be computed by logarithms.

Illustration: if $80.00 invested at an unknown rate, compounded annually will amount to $107.20 in six years, what is the rate?

$80 \times (1+i)^{6} = 107.20$

Hence $(1+i)^{6} = 107.20 \div 80 = 1.34$

Since 1.34 is the 6th power of $1+i$, it is necessary to extract the 6th root, which is accomplished as follows:

log. $1.34=.127105$

log. $\sqrt[6]{1.34}=.127105\div6=.021184$

.021184 is almost the exact logarithm of 1.05, or $1+i$

Hence $i=.05$ the rate.

The Time

When the investment, amount and rate are known, the time can be computed by logarithms.

Illustration: for how many years must $2,000.00 remain at 5% interest compounded annually to produce $5,054.00?

Since $$5054=2000 \times 1.05^n$$

$$5054\div2000=1.05^n$$

or $$2.527=1.05^n$$

$$\log. 2.527=.402605$$

$$\log. 1.05=.021189$$

$.402605\div.021189=19$, the number of years.

Present Value of 1

The present value of a sum due at a fixed future date is a smaller sum which, with interest, will amount to the future sum. When the time is more than one period, the smaller sum will accumulate at compound interest, increasing each period in the ratio of increase of $1+i$.

Representing the present value by the symbol p,

the accumulated sum at the end of 1 period will be $p \times (1+i)$

" " " " " " " 2 periods " " $p \times (1+i)^2$

" " " " " " " n " " " $p \times (1+i)^n$

Where the future sum is 1

$$p \times (1+i)^n=1$$

and since $$(1+i)^n=a$$

$$p \times a=1$$

or $$p=1\div a$$

That is, the present value of 1 due n periods hence at a given rate may be computed by dividing 1 by the amount of 1 for n periods at the same rate.

Illustration: what is the present value of 1 due four periods hence at 3%?

The table of amounts of 1 at 3% shows that $1.03^4=1.125509$.

Then $1 \div 1.125509 = .888487$, which is the present value of 1 at 3% for 4 periods as shown in the following illustrative table:

PRESENT VALUE OF 1

Periods	3%	3½%	4%	4½%	5%
1	.970874	.966184	.961538	.956938	.952381
2	.942596	.933511	.924556	.915730	.907029
3	.915142	.901943	.888996	.876297	.863838
4	.888487	.871442	.854804	.838561	.822702
5	.862609	.841973	.821927	.802451	.783526
6	.837484	.813501	.790315	.767896	.746215
7	.813092	.785991	.759918	.734828	.710681
8	.789409	.759412	.730690	.703185	.676839

When a table of present values is not available the value of p can be computed by dividing 1 by the value of a for the same time and rate, shown by a table of amounts of 1.

In the absence of any table, the value of p can be computed in one of the following ways:

Required: the present value of 1 due 4 periods hence at 3%. Compute the value of a, which in this case is 1.03^4, and divide 1 by the value of a.

$$1.03^2 = 1.0609$$
$$1.03^4 = 1.0609^2 = 1.125509$$
$$1 \div 1.125509 = .888487$$

Or, use the ratio of increase as a divisor as many times as there are periods, using 1 as the first dividend, and each quotient as the dividend in the succeeding division; thus:

$1 \div 1.03 = .970874$	present value of	1	due	1 period	hence
$.970874 \div 1.03 = .942596$	" "	" 1	"	2 periods	"
$.942596 \div 1.03 = .915142$	" "	" 1	"	3 "	"
$.915142 \div 1.03 = .888487$	" "	" 1	"	4 "	"

Or, divide 1 by the ratio of increase, and raise the quotient to the nth power; thus:

$$1 \div 1.03 = .970874$$

$.970874 \times .970874 = .942596$	present value of	1	due	2 periods	hence
$.942596 \times .942596 = .888487$	" "	" 1	"	4 "	"

COMPOUND DISCOUNT

The present value of 1 is the sum which will accumulate to 1 in a given time at a given rate. The difference between 1 and the

present value of 1 is the compound discount, which will be represented by the symbol D. The compound discount can be computed by the formula:

$$D = 1 - p$$

Illustration: required the compound discount on 1 due 4 periods hence at 3%.

The value of p for 4 periods at 3% was computed above. It is .888487.

Therefore $1 - .888487 = .111513$, the compound discount.

This is the formula to use when one has a table of present values. If one has only a table of amounts of 1, it is better to use the formula:

$$D = I \div a$$

This formula requires explanation. The compound discount is really the compound interest earned on the present value. It is the interest which increases p to 1. For instance, if one lends .888487 for 4 periods at 3%, the interest will be .111513, increasing the investment to 1.

Now the interest earned is proportionate to the sum invested. If the investment is 1, the compound interest will be I. If the investment is half of 1, the compound interest will be ½ of I. If the investment is .888487, the interest will be $I \times .888487$. That is, if the investment is p the earning of D will be $I \times p$. But p is $1 \div a$.

Hence the formula:

$$D = I \times p$$

may be stated

$$D = I \times (1 \div a)$$

or

$$D = I \times \frac{1}{a}$$

or

$$D = I \div a$$

To illustrate the application of this formula: required the compound discount on 1 for 4 periods at 3%. Given: $1.03^4 = 1.125509$.

Then $.125509 \div 1.125509 = .111513$.

Annuities

A series of equal payments, due at regular intervals, is an annuity. The intervals may be periods of any length, as a month, a quarter, a half year or a year. The periodical payments of an annuity are called rents.

Since the rents may be invested when received, there is the problem of determining the amount to which the rents will accumulate. On the other hand it may be desired to compute the investment which, with interest accumulations, will permit the withdrawal of rents of stated amounts at stated intervals. The sum so invested is the present value of the annuity. These are the two fundamental annuity problems. The amount of an annuity of 1 will be represented by the symbol A; the present value of an annuity of 1, by the symbol P.

Amount of an Annuity

To illustrate the methods of computing the amount to which the rents of an annuity will accumulate, let it be assumed that a contract requires the following payments:

Dec. 31, 1916	\$300.00
" 31, 1917	300.00
" 31, 1918	300.00
" 31, 1919	300.00

Required the amount to which these payments will accumulate at December 31, 1919, if each rent is invested immediately at 3% per annum.

Clearly the amount of the annuity will be the sum of the four \$300 rents plus the interest on each rent, as follows:

Date	Rent	Periods at interest	Amount of 1	Amount of 300
Dec. 31, 1916	\$300.00	3	1.092727	327.8181
" 31, 1917	300.00	2	1.0609	318.27
" 31, 1918	300.00	1	1.03	309.00
" 31, 1919	300.00	0	1.00	300.00
	1200.00			1255.0881

Although the amount of an annuity may be computed by determining the amount of each rent and the sum of these amounts, it is unnecessary to resort to this labor.

The following short method may be used:

To find the amount of an annuity of 1 for a given number of periods at a given rate, divide the compound interest on 1 for the number of periods at the given rate by the simple interest rate. Or, in symbols:

$$A = I \div i$$

applied to the foregoing illustration:

$1.03^4 = 1.125509$

Hence $I = .125509$

And $A = .125509 \div .03 = 4.18363$, the amount of an annuity of 1

$4.18363 \times 300 = 1255.089$, the amount of an annuity of 300

The accumulation of this annuity may be shown thus:

December	31, 1916	Rent	$300.00
"	31, 1917	Interest at 3% on $300.00	9.00
		Rent	300.00
		Total	$609.00
"	31, 1918	Interest at 3% on $609.00	18.27
		Rent	300.00
		Total	$927.27
"	31, 1919	Interest at 3% on $927.27	27.82
		Rent	300.00
		Total	$1,255.09

To understand the formula $A = I \div i$, it is necessary to consider the relation between compound interest and the amount of an annuity. To show this relation, we shall assume that the four $300.00 payments referred to in the preceding illustration represented the annual interest on $10,000.00 at 3%, the money being lent one year before the first interest payment was due. The four payments of $300.00 each, or $1,200.00 altogether, constitute the simple interest at 3% on $10,000.00 for four years. By investing each $300.00 payment at 3%, the creditor makes his investment pay compound interest, because he earns interest on the interest. The sum of $1,255.089 is, therefore, the compound interest at 3% for four periods on $10,000.00. It is also the amount of an annuity of four rents of $300.00 each, accumulating at 3%, as shown by the two foregoing solutions. Expressed formally as equations,

$1,255.089 = *I* on $10,000.00 (compound interest on $10,000).

and also

$1,255.089 = *A* of $300.00 (amount of annuity of $300.)

Dividing $1,255.089 by 10,000

$.1255089 = *I* on $1

= *A* of $.03

Or, in other words, the compound interest on $1 at 3% for four periods is equal to the amount of an annuity of $.03 for four periods at 3%. Now, if .1255089 is the amount of an annuity of 3 cents for four periods at 3%, .1255089÷3 is the amount of an annuity of 1 cent for four periods at 3%; and .1255089÷.03 is the amount of an annuity of $1 for four periods at 3%. Since .1255089 is also the compound interest on 1 for four periods at 3%, represented by I; and since .03 is the interest rate, represented by i,

$$I \div i = A$$

Interest books usually contain tables showing the amounts of annuities, in the following form:

Amount of Annuity of 1

Periods	3%	3½%	4%	4½%	5%
1	1.000000	1.000000	1.000000	1.000000	1.000000
2	2.030000	2.035000	2.040000	2.045000	2.050000
3	3.090900	3.106225	3.121600	3.137025	3.152500
4	4.183627	4.214943	4.246464	4.278191	4.310125
5	5.309136	5.362466	5.416323	5.470710	5.525631
6	6.468410	6.550152	6.632975	6.716892	6.801913
7	7.662462	7.779408	7,898294	8.019152	8.142008
8	8.892336	9.051687	9.214226	9.380014	9.549109

Amount of an Annuity Due

The above formula for determining the amount of an annuity applies only to an ordinary or immediate annuity. It must be modified slightly to be applicable to an annuity due.

An ordinary or immediate annuity is one whose rents are due at the ends of the periods. An annuity due is one whose rents are due at the beginnings of the periods. Since the last rent of an ordinary annuity is due at the end of the last period, no interest is earned after the payment of the last rent. But in the case of an annuity due, the last rent is paid in at the beginning of the last period, and hence all rents as well as the accumulated interest thereon bear interest for another period.

The difference between these two classes of annuities may be made more apparent by the following table comparing an ordinary annuity, the rents being payable at the end of each period, and an annuity due, the rents being payable at the beginning of each period.

Year	Ordinary annuity Rents due	Annuity due Rents due
1916		January 1
	December 31	
1917		January 1
	December 31	
1918		January 1
	December 31	
1919		January 1
	December 31	

It is evident that if the rents and the interest rates of the two annuities are the same, the amount of the four rents of the ordinary annuity, at December 31, 1919, will be the same as the amount of the four rents of the annuity due at January 1, 1919, because in each case there will be three interest accretions. But in the case of the annuity due, the entire amount accumulated at January 1, 1919, will earn interest for a full period to December 31, 1919, the end of the last period. This will cause an increase computed by multiplying by the ratio of increase, $1+i$. The formula for the amount of an annuity due is therefore:

$$A=(I\div i)\times(1+i)$$

This means that the amount of an annuity due may be computed by determining the amount of an ordinary annuity of the same rents for the same number of periods and at the same rate and multiplying this amount by the ratio of increase.

Illustration: if $300 is deposited on January 1, 1916, 1917, 1918 and 1919, at 3%, what will be the amount of the annuity one year after making the last deposit?

$A=(.125509\div.03)\times1.03$

$=4.18363\times1.03$

$=4.309139$, amount of annuity due of 1

$4.309139\times300=1{,}292.74$, amount of annuity due of 300.

This method is a convenient one to employ when the amount of an ordinary annuity has been computed and it is desired to compute the amount of an annuity due of the same number of rents at the same rate per period. The amount of an annuity due for n periods may also be computed by determining the amount

of an ordinary annuity of $n+1$ periods and deducting one rent. Applying the method to the above illustration, the solution would be:

First, if a table of annuity amounts is available:

The table shows the amount of an ordinary annuity of four rents of 1 at 3%, to be 5.309136.

Then 5.309136—1=4.309136, the amount of an annuity due of four rents.

Second, if a table of annuity amounts is not available:

The amount of 1 at compound interest for five periods at 3% may be computed, or ascertained from a table. It is 1.159274.

Then .159274÷.03=5.309133, the amount of an ordinary annuity of 1 for five periods.

And 5.309133—1=4.309133, the amount of an annuity due of 1 for four periods.

And 4.309133×300=1,292.74, the amount of an annuity due of 300 for four periods.

The accumulation of this annuity may be shown thus:

January 1, 1916	Rent	300.00
January 1, 1917	Interest at 3% on 300.00	9.00
	Rent	300.00
	Total	609.00
January 1, 1918	Interest at 3% on 609.00	18.27
	Rent	300.00
	Total	927.27
January 1, 1919	Interest at 3% on 927.27	27.82
	Rent	300.00
	Total	1,255.09
January 1, 1920	Interest at 3% on 1,255.09	37.65
	Total	1,292.74

Sinking Fund Contributions

When the amount of each contribution to a sinking fund is computed on an actuarial basis, instead of on an arbitrary or a per-unit-of-output basis, the problem is to determine the periodi-

cal rents which will produce a required amount. The periodical contribution is computed by determining the amount of an annuity of $1 for the given number of periods at the given rate. The amount of the required fund is then divided by the amount of an annuity of $1. Representing the total fund by the symbol *S.F.* and the periodical contributions by *S.F.C.*,

$$S.F.C. = S.F. \div A$$

Since it is customary to deposit the periodical contributions at the ends of the periods, *A* usually represents the amount of an ordinary annuity.

Illustration: a company borrowed $25,000.00 for four years, and provided for its repayment by establishing a sinking fund on a 3% basis, the contributions being made at the end of each of the four years. What was the amount of each contribution?

The amount of an ordinary annuity of 1 for four periods at 3% has already been computed at 4.18363.

Then $$SFC = 25{,}000 \div 4.18363$$
$$= 5{,}975.67$$

The following table shows the accumulation of the fund on a 3% basis:

SINKING FUND TABLE

End of 1st year:		
Contribution		5,975.67
End of 2nd year:		
Interest at 3% on 5,975.67:	179.27	
Contribution	5,975.67	6,154.94
Total		12,130.61
End of 3rd year:		
Interest at 3% on 12,130.61:	363.92	
Contribution	5,975.67	6,339.59
Total		18,470.20
End of 4th year:		
Interest at 3% on 18,470.20:	554.11	
Contribution	5,975.67	6,529.78
Total		24,999.98

Or the accumulation of the fund could be shown thus:

SINKING FUND TABLE

Year	Interest	Contribution	Total
1		5,975.67	5,975.67
2	179.27	5,975.67	12,130.61
3	363.92	5,975.67	18,470.20
4	554.11	5,975.67	24,999.98
Total	1,097.30	23,902.68	

If the contributions were made at the beginning of each period it would be necessary to divide the total fund by the amount of an annuity due.

Illustration: referring to the preceding illustration, what would be the amount of each contribution if the company made the deposits at the beginning of each year?

The amount of an annuity due of 1 for four periods at 3% has already been computed at 4.309139.

Then $S.F.C. = 25{,}000 \div 4.309139$

$= 5{,}801.62$

The accumulation of the sinking fund may be tabulated as follows:

SINKING FUND TABLE

First Year:		
Beginning:	Contribution	5,801.62
End:	Interest on 5,801.62	174.05
		5,975.67
Second Year:		
Beginning:	Contribution	5,801.62
		11,777.29
End:	Interest on 11,777.29	353.32
		12,130.61
Third Year:		
Beginning:	Contribution	5,801.62
		17,932.23
End:	Interest on 17,932.23	537.97
		18,470.20

Fourth Year:

Beginning:	Contribution	5,801.62
		24,271.82
End:	Interest on 24,271.82	728.16
Total fund		24,999.98

Or the accumulation may be shown as follows:

SINKING FUND TABLE

Year	Contribution	Interest	Total
1	5,801.62	174.05	5,975.67
2	5,801.62	353.32	12,130.61
3	5,801.62	537.97	18,470.20
4	5,801.62	728.16	24,999.98
Total	23,206.48	1,793.50	

INTERIM INTEREST DATES

Sometimes the interest is compounded more frequently than the rents are payable. For instance, the rents of the annuity may be due annually, while the interest may be compounded semi-annually or quarterly. Such a problem offers no difficulty if one remembers that the nominal and effective rates per annum differ under such conditions.

Illustration: what is the amount of an annuity of four rents of $100.00 each, payable at the expiration of a year, if the rents are invested at 6% per annum compounded semi-annually?

Although the rate is stated as 6% per annum, it is really 3% a half year. The ratio of increase each half year is, therefore, 1.03, and the ratio of increase each year is 1.03^2, or 1.0609. Hence the effective rate per annum is 6.09%.

The amount of 1 for four years at 3% a half year, is 1.03^8, or 1.266770; hence the compound interest is .266770. The amount of an annuity of 1 is computed as follows:

$$A = .266770 \div .0609$$
$$= 4.38046$$

And the amount of an annuity of 100 is 438.05.

The following table is set up by way of proof:

ACCUMULATION OF ANNUITY

First Year:			
End:	Contribution:		100.00
Second Year:			
Middle:	Interest on 100.00	3.00	
End:	" " 103.00	3.09	6.09
	Contribution		100.00
	Total		206.09
Third Year:			
Middle:	Interest on 206.09	6.18	
End:	" " 212.27	6.37	12.55
	Contribution		100.00
	Total		318.64
Fourth Year:			
Middle:	Interest on 318.64	9.56	
End:	" " 328.20	9.85	19.41
	Contribution		100.00
	Total (as above)		438.05

If the rents are payable at the beginning of each year the amount is first computed for a similar annuity in which the rents are due at the end of each year, and this amount is multiplied by the ratio of increase.

Illustration: Assuming that each of the $100.00 rents in the preceding illustration was payable at the beginning of the year, what would be the amount of the annuity at the end of the fourth year?

	438.05	Amount of annuity when rents are payable at end
Multiply by	1.0609	
	464.73	Amount of annuity when rents are payable at beginning

The following table is set up in proof:

ACCUMULATION OF ANNUITY

First Year:		
Beginning:	Contribution	100.00
Middle:	Interest on 100.00	3.00
End:	" " 103.00	3.09
Total		106.09
Second Year:		
Beginning:	Contribution	100.00
Middle:	Interest on 206.09	6.18
End:	" " 212.27	6.37
Total		218.64
Third Year:		
Beginning:	Contribution	100.00
Middle:	Interest on 318.64	9.56
End:	" " 328.20	9.85
Total		338.05
Fourth Year:		
Beginning:	Contribution	100.00
Middle:	Interest on 438.05	13.14
End:	" " 451.19	13.54
Total (as above)		464.73

The accumulation of interest at interim dates finds application in sinking funds which are accumulated by annual deposits, while the interest on the fund is compounded semi-annually. This is ordinarily the case with sinking funds, because the contributions are usually made annually, and the funds are invested in bonds bearing coupons payable semi-annually. To find the periodical contributions which will produce the required fund, compute the amount of an annuity of 1 by the process described in the preceding paragraph and divide the required fund by this amount.

COMPUTING AN UNKNOWN RATE

When the rents, the amount and the time of an annuity are known, it may be desired to compute the rate, as in the following illustration:

At what rate will an ordinary annuity of four rents of $100.00 amount to $418.36?

Problems of this nature are impossible of exact solution. Working with the formula for the amount of an annuity,

$$A = I \div i$$

we know the value of A, which in this case is 4.1836. The value of I is unknown, but substituting for I its equivalent $(1+i)^n - 1$, in which the value of n is known to be 4, the knowns and unknowns can be stated as follows:

$$4.1836 = \frac{(1+i)^4 - 1}{i}$$

This equation cannot be solved to obtain an exact value of i. Perhaps the best method of obtaining an approximation is by reference to a table showing amounts of annuities. A table shows the following amounts at various rates for four periods:

Periods	2%	2½%	3%	3½%	4%
4	4.121608	4.152516	4.183627	4.214943	4.246464

This table shows that the required rate is 3%. But assume that the table does not show this rate, and that the amounts nearest to the 4.1836 stated in the problem are

	Rates	Amounts
	at 3½%	4.214943
	" 2½%	4.152516
differences	1%	.062427

Then a difference of 1% in the rate causes a difference of .062427 in the amount.

The amount at the unknown rate is	4.1836
and the amount at the next lower known rate is	4.152516
and the difference is	.031084

If an increase of .062427 in the amount is caused by an increase of 1% in the rate, the increase of .031084 in the amount is caused by an increase in the rate of approximately

$\frac{.031084}{.062427}$ of 1%.

$$.031084 \div .062427 = .498$$

Hence the approximate rate is 2.5%+.498%, or 2.998%, which is very close to the true rate of 3%.

Computing an Unknown Time

When the rents, the amount and the rate of an annuity are known, the unknown number of periods can be computed by logarithms.

Illustration: in how many periods will rents of $100.00 amount to $418.36 at 3%?

Dividing $418.36 by 100, the amount of an annuity of 1 is determined as 4.1836.

Applying the formula $A=I\div i$, or

$$A=\frac{(1+i)^n-1}{i}$$

the knowns and unknowns are

$$4.1836=\frac{1.03^n-1}{.03}$$

Multiplying both sides by .03 $\quad 4.1836\times.03=1.03^n-1$

or $\quad .125508=1.03^n-1$

adding 1 to both sides $\quad 1.125508=1.03^n$

Then by logarithms:

$$\log.\ 1.125508=\log.\ 1.03\times n$$

and $$\frac{\log.\ 1.125508}{\log.\ 1.03}=n$$

log. 1.125508 is .051346

log. 1.03 is .012837

$.051346\div.012837=4$, the number of periods.

Since 1.125508 is the amount of 1 for n periods at the known rate, and since 1.03 is the ratio of increase, $1+i$, the formula for computing the time required to produce a known amount of an annuity may be stated

$$n=\frac{\log.\ a}{\log.\ (1+i)}$$

Present Value of Annuity

The present value of an annuity is the sum which must be put at interest to produce the desired rents. This invested sum is increased by the interest accretions and decreased by the payment of the rents, the balance remaining at the date when the last rent is due being exactly sufficient to provide for the last rent.

Illustration: a contract requires the payment of $100.00 on December 31, 1916, and each year thereafter until December 31, 1919. What sum invested at 3% per annum one year before the first $100.00 payment is due will be sufficient to provide the four payments?

Clearly the sum will be less than $400.00 because of the interest. The present value of each of the four rents may be computed, and the sum of these present values will be the present value of the annuity. Thus:

Rent due	Rent	Periods present value earns interest	Present value at 3%
Dec. 31, 1916	100.00	1	97.0874
" 31, 1917	100.00	2	94.2596
" 31, 1918	100.00	3	91.5142
" 31, 1919	100.00	4	88.8487
Present value of four rents			371.7099

When the present value of an annuity is computed in this manner, the present value of the first rent may be computed by dividing the rent by the ratio of increase $(1+i)$. This present value is divided by the ratio of increase to determine the present value of the second rent; the quotient of each division serving as the dividend for the next succeeding division, thus:

100.00 ÷1.03=97.0874	present value of rent due 1 period hence
97.0874÷1.03=94.2596	" " " " " 2 periods "
94.2596÷1.03=91.5142	" " " " " 3 " "
91.5142÷1.03=88.8487	" " " " " 4 " "
371.7099	present value of the annuity

This method is too laborious to be employed when there are many rents, and the labor can be avoided by applying the following short method:

To compute the present value of an annuity of 1 for a given number of periods at a given rate, divide the compound discount on 1 for the same number of periods at the given rate by the interest rate. Representing the present value of an annuity of 1 by the symbol P,

$$P=D\div i$$

Applying this formula to the illustration, the first step is to determine the compound discount, D. A table of present values of 1, shows .888487 as the present value of 1 at 3% due four periods hence.

Then 1—.888487=.111513, the compound discount;
and .111513÷.03=3.7171 the present value of an annuity of 1
and 3.7171×100=371.71 the present value of an annuity of 100

The reduction of this present value may be tabulated as follows:

December 31, 1915	Present value	371.71
December 31, 1916	Interest at 3% on 371.71	11.15
	Total	382.86
	Rent deducted	100.00
	Balance	282.86
December 31, 1917	Interest at 3% on 282.86	8.49
	Total	291.35
	Rent deducted	100.00
	Balance	191.35
December 31, 1918	Interest at 3% on 191.35	5.74
	Total	197.09
	Rent deducted	100.00
	Balance	97.09
December 31, 1919	Interest at 3% on 97.09	2.91
	Total	100.00
	Rent deducted	100.00
	Balance	0.00

Or thus:

Schedule of Reduction of Annuity

Date	Interest added	Rent deducted	Balance
Dec. 31, 1915			371.71
" 31, 1916	11.15	100.00	282.86
" 31, 1917	8.49	100.00	191.35
" 31, 1918	5.74	100.00	97.09
" 31, 1919	2.91	100.00	0.00
	28.29	400.00	

Interest books usually contain tables showing present values of annuities, in the following form:

Present Value of Annuity of 1

Periods	3%	3½%	4%	4½%	5%
1	.970874	.966184	.961538	.956938	.952381
2	1.913470	1.899694	1.886095	1.872668	1.859410
3	2.828611	2.801637	2.775091	2.748964	2.723248
4	3.717098	3.673079	3.629895	3.587526	3.545951
5	4.579707	4.515052	4.451822	4.389977	4.329477
6	5.417191	5.328553	5.242137	5.157872	5.075692
7	6.230283	6.114544	6.002055	5.892701	5.786373
8	7.019692	6.873956	6.732745	6.595886	6.463213

In the absence of such a table, the present value of an annuity can be computed by repeated divisions to determine the present value of each successive rent, as illustrated above, or by applying the formula $P = D \div i$. If a table of present values of 1 is available, the value of D can be obtained by subtraction, thus:

1.00
.888487 present value of 1 at 3% for 4 periods.

.111513 compound discount at 3% for 4 periods.

If one has only a table of amounts of 1, the value of D can be computed by applying the formula $D = I \div a$, thus: The table of amounts of 1 shows:

$$1.03^4 = 1.125509$$

Then $.125509 \div 1.125509 = .111513$

Present Value of Annuity Due

If the rents are payable at the beginning of each period, no interest will be earned on the invested sum before withdrawing the first rent. Therefore it will be necessary to invest a larger sum than would be invested if the annuity were an ordinary one. The extra amount to be invested is equal to the interest earned on the present value of an ordinary annuity during the first period. Therefore, the present value of an annuity due can be computed by multiplying the present value of an ordinary annuity of the same number of rents at the same rate, by $1+i$, the ratio of increase.

Illustration: what sum must be invested on January 1, 1916, to permit the withdrawal of four rents of $100.00 each on the first day of January, 1916, 1917, 1918 and 1919? Interest at 3% a year.

This is an annuity due of 4 rents at 3%. The present value of an ordinary annuity of 4 rents of 1 at 3% was computed in the preceding illustration. It is 3.717099. Then $3.717099 \times 1.03 = 3.828612$, the present value of an annuity due of 1. And $3.828612 \times 100 = 382.86$, the present value of an annuity due of 100.

The reduction of this present value may be shown thus:

January 1, 1916	Present value	$382.86
	Rent deducted	100.00
	Balance	282.86
January 1, 1917	Interest at 3% on $282.86	8.49
	Total	291.35
	Rent deducted	100.00
	Balance	191.35
January 1, 1918	Interest at 3% on $191.35	5.74
	Total	197.09
	Rent deducted	100.00
	Balance	97.09

January 1, 1919	Interest at 3% on $97.09	2.91
	Total	100.00
	Rent deducted	100.00
	Balance	0.00

The present value of the annuity due for four periods is the sum of the first rent plus the present value of the last three rents. Therefore, when a table of present values of ordinary annuities is available, take the present value of such an annuity for $n-1$ periods and add one rent.

To illustrate: the annuity table shows

2.828611 Present value of ordinary annuity of 3 rents at 3%
Add 1.000000

3.828611 Present value of annuity due of 4 rents at 3%

Interim Interest Dates

In cases where the time between the withdrawals of rents is divided into smaller interest periods, as in an annuity where the interest is compounded semi-annually and the rents are withdrawn annually, consideration must be given to the difference between the nominal and the effective interest rates.

Illustration: what sum invested at 6% a year, interest compounded semi-annually, will produce four rents of $100.00, drawn annually, the first withdrawal being made one year after investing the present value of the annuity?

With eight interest periods and a rate of 3% per period, the first step in the solution is to find the present value of 1 due 8 periods hence at 3%. This is shown by a table of present values to be .789409. Then the compound discount is .210591.

The effective rate per year is computed thus:

$1.03^2 = 1.0609$ ratio of increase per annum.

And 6.09% is the effective rate per annum.

Then $.210591 \div .0609 = 3.45798$ present value of annuity of 1.

$3.45798 \times 100 = 345.80$ present value of annuity of 100.

The reduction of this annuity may be shown thus:

First year:		
Beginning:	Investment	345.80
Middle:	Interest at 3% on $345.80	10.37
End:	" " " " 356.17	10.69
	Total	366.86
	Rent withdrawn	100.00
	Balance	266.86
Second year:		
Middle:	Interest at 3% on 266.86	8.01
End:	" " " " 274.87	8.25
	Total	283.12
	Rent withdrawn	100.00
	Balance	183.12
Third year:		
Middle:	Interest at 3% on 183.12	5.49
End:	" " " " 188.61	5.66
	Total	194.27
	Rent withdrawn	100.00
	Balance	94.27
Fourth year:		
Middle:	Interest at 3% on 94.27	2.83
End:	" " " " 97.10	2.91
	Total	100.01
	Rent withdrawn	100.01
	Balance	0.00

Present Value of Deferred Annuity

A deferred annuity is one which does not begin to run until after the expiration of a number of periods. For instance, an annuity of 5 rents deferred 10 periods is one which does not begin to run until after the expiration of 10 periods. If the

periods are a year in length, ten years will elapse before the first period in which a payment is to be made, and as the rents are ordinarily due at the ends of periods, the first rent will not be due until the end of the eleventh year.

To illustrate the method of computing the present value of such an annuity, assume that the 5 rents are $500 each, the annuity being deferred ten periods. The present value at 5% a year is desired.

The rents are payable at the end of the 11th, 12th, 13th, 14th and 15th years. If we were required to find the present value of the annuity at the beginning of the 11th year, the solution would consist merely of computing the present value of an ordinary annuity of 5 rents, as follows:

Present value of 1 at 5% in 5 periods=	.783526
Compound discount	.216474

.216474÷.05=4.32948 present value of ordinary annuity of 1.

By investing 4.32948 at the beginning of the 11th year it will be possible to draw out rents of 1 at each rent date. But since the annuity is deferred 10 periods the investment, made at the beginning of the first year, will earn interest for 10 periods before the beginning of the 11th year. Then if 4.32948 invested at the beginning of the 11th period will produce the annuity, the investment at the beginning of the first year need be only the present value of 4.32948.

Present value of 1 at 5% in 10 periods=	.613913
Multiply by	4.32948
Present value deferred annuity of 1	2.65792
Multiply by	500
Present value of deferred annuity of 500	1328.96

The method of procedure may be stated thus: to find the present value of an annuity of 1 for *n* periods deferred *m* periods. compute the value of an ordinary annuity of 1 for *n* periods and multiply by the present value of 1 due *m* periods hence.

Proof of the accuracy of 1328.96:

This investment earns compound interest for 11 years before the first rent is withdrawn:

	$1.05^{11}=1.710339$	
Multiply by	1328.96	
	2,272.97	
Deduct 1st rent	500.00	
	1,772.97	Value end of 11th year
Add 5% interest	88.65	
	1,861.62	
Deduct 2nd rent	500.00	
	1,361.62	" " " 12th "
Add 5% interest	68.08	
	1,429.70	
Deduct 3rd rent	500.00	
	929.70	" " " 13th "
Add 5% interest	46.49	
	976.19	
Deduct 4th rent	500.00	
	476.19	" " " 14th "
Add 5% interest	23.81	
	500.00	
Deduct 5th rent	500.00	
	0.00	" " " 15th "

Rents Produced by Known Present Value

An annuity problem of frequent application is the determination of rents produced by a known present value. To illustrate: if $5,000.00 is invested at 5% a year, what rents can be withdrawn at the end of each of 10 years?

If it were desired to withdraw rents of $1, the present value of an annuity of 1 for 10 periods at 5% would be invested. This

present value could be determined from an interest table, or computed. It is 7.721735.

Then 5,000÷7.721735=647.52 annual rent produced by investment of $5,000.

Hence to find the rents, divide the investment or known present value by the present value of an annuity of 1 for *n* periods at the rate *i*.

Equal Instalments in Payment of a Debt

The procedure explained above is used to compute the equal periodical amounts to be paid in settlement of the principal and interest of a debt.

To illustrate: assume that A borrows $5,000.00 from B at 5% and agrees to pay principal and interest in ten equal annual instalments, the first instalment to be paid at the expiration of one year. These ten payments are an annuity, and if A invested the $5,000.00 at 5% it would, of course, exactly provide the annual amounts which he could draw out and pay to B.

Since $5,000.00 is the present value of 10 unknown rents at 5%, and since 7.721735 is the present value of 10 rents of 1 at 5%

5,000.00÷7.721735=647.52 the equal instalment.

The reduction of the debt may be shown as follows:

Annuity Repayment of Debt

Year	Total	Payment Of interest	Payment On principal	Balance of principal
				5000.00
1	647.52	250.00	397.52	4602.48
2	647.52	230.12	417.40	4185.08
3	647.52	209.25	438.27	3746.81
4	647.52	187.34	460.18	3286.63
5	647.52	164.33	483.19	2803.44
6	647.52	140.17	507.35	2296.09
7	647.52	114.80	532.72	1763.37
8	647.52	88.17	559.35	1204.02
9	647.52	60.20	587.32	616.70
10	647.52	30.83	616.69	.01
	6475.20	1475.21	4999.99	

Leasehold Premiums

When the rental value of real estate has increased, the holder of a lease may prefer to sublet rather than to continue to occupy the property. If so, he takes as his gain the difference between the rent he pays on the original lease and the rent he receives on the sub-lease.

For instance, A owns property which he has leased to B for 20 years at $3,000.00 a year, payable in advance. At the expiration of the seventh year C wishes to occupy the property and is willing to pay $4,000.00 a year for it. Several different arrangements may be made.

B may sub-lease to C, collecting $4,000.00 a year, and paying $3,000.00 to A. C may pay $3,000.00 to A and $1,000.00 to B each year. He may pay A $3,000.00 a year, and pay B the present value of the thirteen payments of $1,000.00 each. The present value of these $1,000.00 payments is the premium paid for the lease.

Since the rent is payable in advance, the first rent is due. The premium to be paid is the present value of an annuity due of 13 rents. If B and C agree on 5% as the rate for discounting the annuity, the computation of the premium would be as follows:

$.530321 = V^{13}$ at 5%, present value of 1 due 13 periods hence at 5%
$.469678 \div .05 = 9.39356$, present value or ordinary annuity of 1
$9.39356 \times 1000 = 9{,}393.56$, present value of ordinary annuity of 1000
$9.39356 \times 1.05 = 9{,}863.24$, present value of annuity due of 1000.

Or as follows:

8.863252, present value of ordinary annuity of 1 at 5% for 12 periods, as shown by annuity table.
$8.863252 \times 1000 = 8{,}863.252$ present value of ordinary annuity of 1000
$8{,}863.25 + 1000 = 9{,}863.25$ present value of annuity due of 1000 for 13 periods.

C would charge this 9,863.25 to leasehold premium, and would write it off as scheduled below:

Reduction of Leasehold Premium

Year	Debit rent	Credit interest	Credit leasehold premium	Balance
				9,863.25
1	1,000.00		1,000.00	8,863.25
2	1,000.00	443.16	556.84	8,306.41
3	1,000.00	415.32	584.68	7,721.73
4	1,000.00	386.09	613.91	7,107.82
5	1,000.00	355.39	644.61	6,463.21
6	1,000.00	323.16	676.84	5,786.37
7	1,000.00	289.32	710.68	5,075.69
8	1,000.00	253.79	746.21	4,329.48
9	1,000.00	216.47	783.53	3,545.95
10	1,000.00	177.30	822.70	2,723.25
11	1,000.00	136.16	863.84	1,859.41
12	1,000.00	92.97	907.03	952.38
13	1,000.00	47.62	952.38	
Total	13,000.00	3,136.75	9,863.25	

If the rents had been payable at the end of each year and the transfer of the lease had been made at the beginning of the year, the computation of the premium would be a problem of the present value of an ordinary annuity instead of the present value of an annuity due.

(*To be concluded.*)

Depreciation and Depletion in Relation to Invested Capital

By William B. Gower

Some interesting questions arise from treasury requirement (reg. 45 rev. art. 838) that the earned surplus and undivided profits of a corporation, forming part of its invested capital for purposes of profits tax calculations, must be "true" and must accord "full recognition" of all expenses and losses from the time of organization down to the taxable year, including depreciation of property and depletion of natural resources.

We are concerned particularly with the question as to what constitutes "true earned surplus and undivided profits" and what constitutes "full recognition" of depreciation and depletion of property during the period, be it long or short, covered by the entire life of the corporation down to the taxable year; whether present day rules adopted by the treasury for computing depreciation and depletion under the revenue act of 1918 are applicable necessarily to the anterior economic period during which a corporation accumulated its earnings and surplus; whether the prevailing tendency towards enhanced values of depreciable property (using the term "value" in either of its two different meanings of "value in use" and "value in exchange") has any bearing on the subject; and whether the present condition and value of depreciable property is a factor in the reckoning.

In order to understand clearly the treasury rule as to the bearing of depreciation of tangible property and depletion of property upon the invested capital of a corporation, it is necessary to state first the four elements which constitute invested capital, as defined by the statute. Broadly speaking, they consist of assets acquired with or represented by:

(a) The cash paid in for stock;
(b) The tangible property paid in for stock;
(at a value not exceeding actual cash value at the time of payment);
(c) The paid-in and earned surplus and undivided profits;
(d) The intangible property paid in for stock
(within limitations).

Neither the statutory definition of the elements (a), (b) and (d) of invested capital nor the treasury regulations appear to contemplate, either by direct expression or by implication, any diminution of these elements, per se, as expressions of original investments in depreciable property. So far as these three elements of invested capital are concerned, the present condition of depreciable property appears to be of no consequence—it may be abandoned or in ruins without affecting these elements. Apparently neither expiration of a portion of its useful life nor deterioration nor the complex of agencies working for impairment and destruction need be taken into consideration. Nor, on the other hand, is any expansion of these elements of invested capital permitted by reason of the action of natural and economic forces which may have resulted in appreciation over original cost-value. In a word, the present condition of property and its present value seem to have no bearing whatever upon these three elements of invested capital.

The view of the treasury regulations is that the remaining element of invested capital—(c) "earned surplus and undivided profits, not including surplus and undivided profits earned during the year"—is the one to which we must look for recognition of depreciation and depletion of property.

REGULATION: Only true earned surplus and undivided profits can be included in the computation of invested capital, and if for any reason the books do not properly reflect the true surplus such adjustments must be made as are necessary in order to arrive at the correct amount.

In the computation of earned surplus and undivided profits full recognition must first be given to all expenses incurred and losses sustained from the original organization of the corporation down to the taxable year, including among such expenses and losses reasonable allowances for depreciation, obsolescence or depletion of property (irrespective of the manner in which such property was originally acquired) and for the amortization of any discount on its bonds.

There can of course be no earned surplus or undivided profits until any deficit or impairment of paid-in capital due to depletion, depreciation, expense, losses or any other cause has been made good.

Before examining this regulation in detail we might point out that it would apply, undoubtedly, not only to corporations which claimed an earned surplus and undivided profits as part of their invested capital, but also to corporations which had distributed all their earnings to the shareholders and did not claim an existing surplus as part of their invested capital. In the latter event, if inadequate recognition of depreciation and depletion had occurred

in the profit and loss account, it would be held that a liquidation of capital had taken place, to which full effect must be given in reckoning invested capital under article 860 of the regulations.

(1) The opening phrase of the regulation insists that the earned surplus and undivided profits which a corporation claims as part of its invested capital shall be "true." There is no distinction of fundamental character between "earned surplus" and "undivided profits," for surplus is merely profits reserved from distribution. Broadly speaking, they represent in combination the accretions of wealth during the economic period derived from business conduct and dealings in property, as distinct from accretions derived from mere accessions of capital or from borrowed funds. The accretions of wealth must have been earned and must be in possession. It is in the sense of these necessary attributes of earned surplus and undivided profits that the treasury regulation applies the adjective "true" in the opening phrase.

The accretions of corporate wealth from the date of organization down to the taxable year are expressed by the difference between the total of the assets (less liabilities) at the beginning of the taxable year and the corresponding total at the commencement of corporate operations. To the accountant it is a comparison of balance-sheets and carries with it all the debatable questions which surround assets and the principles of their valuation. The main problems are well known namely:

(a) What items may be taken in as assets?
(b) What expenditures may be included in their cost price?
(c) In subsequent revaluations of assets, shall they be put down at the original acquisition price or the current market price or the present value in use to the corporation or the liquidating value or some other value?

For our immediate purpose we need consider only the one question as to the value to be placed in the balance-sheets on depreciable property, the so-called "fixed assets," by which are meant those which are acquired for permanent or long-continued use as instruments of production and service. The accounting rule is that in preparing the comparative balance-sheets for the purpose of verifying accumulated earnings over a given period, the fixed assets must appear consistently in each balance-sheet at their cost-value, that is to say not in excess of the cash paid

for them or in excess of the fair value at the time of acquisition if stock was issued in payment. Further, that changes in market value of fixed assets, the maintenance of which is provided for, may be ignored; but that depreciation (in the sense of amortization of cost-value, less estimated salvage) must always be taken into account. This accounting rule was adopted and has received general acceptance, in spite of the admitted objection that cost-value is no criterion of "value to a going concern" at a subsequent date.

Even though the established accounting rule were set aside, and depreciable property were valued in a later balance-sheet at a figure substantially greater than its cost-value or fair value at the time of acquisition—say at its estimated present worth—the difference would be considered an unrealized value-appreciation or increment which, as an accretion of corporate wealth, would not be accepted by the treasury as "earned surplus" or "undivided profits."

Let us assume the problems of valuation of assets in the balance-sheet solved by applying in each instance the principles which find the greatest support from the courts and recognized accounting practice and assume the extent of accretions of corporate wealth determined. We reach then the difficult questions involved in classifying the derivation of the accretions and determining what portion was derived from "earnings" and "profits," as distinct from other sources.

To the accountant, it is no longer a comparison of balance-sheets, assets and liabilities, but an examination of the complementary record contained in the summary of the economic accounts (profit and loss, surplus, distribution) from the date of corporate organization down to the beginning of the taxable year. Here again many debatable questions arise, for there are no exact and invariable standards of measurement accepted by the courts, financiers, accountants and economists. The difficulty increases with the length of the economic period during which the accumulations of earnings arose, which may be years or decades.

In the study of the economic summary the problems may be divided broadly between those relating to the credit side (we may instance the question whether or not realized and unrealized ap-

preciation of property values is earned surplus) and those relating to the debtor side, losses, expenses, charges and outlays.

The emphasis in the treasury regulation which we are now considering is on the debtor side of the accounts in the economic summary, the only reference to the credit side being contained in the opening caution that earned surplus and undivided profits must be "true."

(2) In dealing with the debtor side of the accounts in the economic summary (losses, expenses, charges and outlays) the treasury regulation confines itself to a requirement and an opinion. It requires "full recognition" of all expenses incurred and losses sustained from the organization of a corporation down to the taxable year, including depreciation, depletion, obsolescence and discount. It states an opinion that there can be no earned surplus or undivided profits until any deficit or impairment of paid-in capital due to any cause whatever has been made good.

Concerning the requirement for full recognition of expenses and losses as charges against the profit and loss account, accountants will assent, provided the expenses and losses are restricted to those which accounting practice recognizes as proper charges to profit and loss. For instance, there are certain losses, such as those arising from fire, shipwreck, default of capital investments, exploitation of natural resources, etc., which may be regarded as a loss of capital, rather than a loss of profits. Neither the decisions of our courts nor the practice of accountants confirms the opinion of the treasury regulation that there can be no profits until any deficit or impairment of paid-in capital, due to any cause whatever, has been made good. The accounting position has been stated by Professor Hatfield with concise and admirable lucidity in his standard work *Modern Accounting,* and his conclusion may be quoted:

> It may be logical to claim that *all* losses or gains, however caused, should go to profit and loss, and not direct to some other proprietorship account. But such a claim, while logical enough, does not at all conform to accounting practice of any land or time.

The form of expense which we term depreciation, however, is recognized by accounting practice as a necessary charge against profits; but the recognition is not so general in the case of depletion. We have now to consider what constitutes full recognition of these expenses from the organization of a corporation down to the taxable year.

DEPRECIATION OF TANGIBLE PROPERTY

It has been said that the debtor side of the accounts in the economic summary contains the expressions of the decreases in corporate wealth which take place contemporaneously and necessarily in the efforts to increase the corporate wealth. This is a sufficiently correct generalization when applied to the entire economic life of a corporation, from organization to final liquidation, considered as an entity. It requires modification, however, when applied to each accounting period or year, the sum of which constitutes the operating history of the corporation. Particularly is this so in regard to periodic charges to profit and loss for the amortization of prepaid expenses and anticipation accounts and for the destruction of cost-value of fixed assets, for these periodic charges do not necessarily connote contemporaneous and commensurate decreases of wealth.

The cost-value of an instrumentality of production and service, a fixed asset acquired for long-continued use, less the net proceeds of final disposal, in an expense appertaining to the period of its useful life considered as a unit of time, because a decrease of wealth takes place. Custom demands, however, that this unit of time be divided into yearly portions and accounts be stated for each year. The decrease of wealth inevitable in the instrumentality does not take place, strictly speaking, until its usefulness is ended; for its value to the going concern is rarely less than its cost-value so long as it functions and provision is made for its maintenance. But the fact that the corporation suffers no decrease of wealth while the instrumentality functions and its maintenance is provided for does not constitute a sound reason for allotting the expense to the final year—one reason being that the instrumentality assists in producing revenue throughout its years of useful life, and it is only right that when this revenue is apportioned to yearly periods there should be charged against it some portion of the inevitable future decrease of wealth involved in the purchase and demise of the instrument. These apportioned charges year by year constitute what we term the expense for depreciation, and they are anticipations of future decreases of wealth.

These annual expenses for depreciation of tangible property, therefore, do not necessarily connote contemporaneous and equiva-

lent decreases of corporate wealth, but represent instalments in anticipation of future inevitable decreases of wealth, which will occur when the useful life of the property terminates. To justify these annual expense charges there must be a reasonable degree of certainty as to the occurrence in the future of a decrease of wealth by reason of the termination of the useful life of the property—in other words, that the proceeds of ultimate disposal will be less than cost-value.

Economists have a theory which is built up from the premise that fixed assets yield a series of fairly uniform services for a fairly fixed term of years. From this premise they argue that an analogy exists to a terminable annuity, the annual instalments of which represent the value of the services rendered during the year by the fixed assets. They conclude, therefore, that the fixed assets have a capital-value, that is to say the discounted value of the annual instalments of valued future services. They regard this capital-value as diminishing progressively as the date for the termination of the service approaches, and this progressive decline in capital-value is the depreciation of the fixed assets. All this is ingenious, no doubt, but the ground is too slippery for accounting practice. We have troubles enough in our work without concerning ourselves with "series of fairly uniform services" or abstract "values" of such services or analogies which lead us to the quagmire of "capital-values."

There is no connection, necessarily, between these annual expenses which we term depreciation and any fluctuations in value of the property during its term of life. To represent annual depreciation charges as the registration of contemporaneous decline in value is fallacious. No matter what concept of "value" is used, whether fair market value, liquidating value, value in use, or any other, mere fluctuations and changes during the term of useful life of property are disregarded in accounting, because the going concern is not affected thereby. The present value in use of a manufacturing plant erected in 1914 may be several times its cost-value; but this is not a phenomenon to be reflected in the economic accounts, nor does it warrant the discontinuance of annual provision through depreciation charges for the decrease in corporate wealth which is inevitable in the future, when its useful life is ended. Nor, if the present liquidating value of the

plant be only one-half of its cost-value, does it warrant the assumption that one-half of the cost-value should have been provided to date by depreciation charges against the income, unless, by chance, one-half of the useful term of life has expired.

The accumulated depreciation allowances at a given date do not pretend to measure a supposed diminution in value of the property since its acquirement; for if the useful life of the property is in full swing there is no decrease of corporate wealth which the accountant is called upon to recognize. Subtracting the accumulated depreciation from the cost-value of the property does not give a remainder which pretends to reflect present value, whether fair market value, liquidating value or utility value.

Accountants are responsible in a large measure for the prevailing erroneous ideas on this subject, for accounting literature is saturated with them, such as that present value of depreciable property is necessarily reflected in a balance-sheet; that the use of depreciable property compels a continuous and progressive shrinkage in its value; that depreciation allowances year by year reflect and measure this supposititious shrinkage in value, and that each annual instalment is a contemporaneous loss of some kind. The progress toward correct thinking on this subject cannot be better illustrated than by contrasting the language of the treasury regulations of 1914, 1918 and 1919, and observing the fundamental change:

Reg. 33 Jany. 5, 1914.

The deduction for depreciation should be the estimated amount of the *loss,* accrued during the year to which the return relates, *in the value of the property* in respect of which such deduction is claimed, that arises from . . .

Reg. 33 rev. Jany. 2, 1918.

The deduction for depreciation should be the amount of the *loss* occurring during the year to which the return relates, estimated on the cost of the physical property with respect to which such deduction is claimed, which loss results from . . .

Reg. 45 rev. 1919.

The necessity for a depreciation allowance arises from the fact that certain property used in the business gradually approaches a point where its usefulness is exhausted. . . . The capital sum to be replaced should be charged off over the useful life of the property either in equal annual instalments or in accordance with any other recognized trade practice.

In order to determine whether or not full recognition has been given in the profit and loss account to the expense known as depreciation of tangible property at a given date, we require only the following data: (a) the cost-value, (b) the probable amount

to be realized upon termination of useful life, (c) the term of useful life and (d) the expired term of useful life. Expressed algebraically the formula is

$$\frac{d\ (a - b)}{c}$$

The present-day value of the property does not enter into the question at all, except indirectly as bearing upon the factor (b), the probable amount to be realized upon liquidation when the useful life of the property ends, and perhaps to some slight extent in affecting the time when the property will be disposed of.

This basis of reckoning the expense known as depreciation of tangible property, in order to determine whether or not it has been fully recognized in the earned surplus at a given date, applies, even though in years subsequent to 1908 a corporation may have used a valuation higher than cost-value of the property in computing depreciation and reporting net income under the excise tax law of 1909 and subsequent income and profits tax laws. In recent years depreciation has been computed in many cases upon the fair market value of property as of March 1, 1913. This value was frequently higher than cost-value.

In such cases there has been recognition of two separate and distinct concepts—the first, an expense representing anticipated decrease of wealth based on extinguishment of cost-value; the second, recognition of another element which is not an accounting expense, but an allowance out of gross income to replace an arbitrary capital-value existing at March 1, 1913, being the appreciation in value of property at that date over its cost-value. The term depreciation is used to cover both elements, but there is a sharp differentiation between the two, for one is an element of true corporate expense, which must be recognized invariably in the economic accounts, while the other element is a mere allowance, an artificial product of income-tax legislation, born with the income tax, and assured of oblivion at its demise.

The existence of these two elements in present-day depreciation, the one a natural corporate expense, the other an artificial allowance out of receipts designed to recover appreciation in value at March 1, 1913, over original cost, is recognized expressly in article 844 of the regulations. The language of this article confirms, unreservedly, our opinion that in computing earned surplus

and undivided profits which may be included as invested capital, the reckoning of depreciation of tangible property is full and complete when based on cost-value. If a basis higher than cost has been used, and the surplus account has been reduced accordingly, the excess "may be treated as surplus and included in the computation of invested capital, if undistributed and used and employed in the business."

To sum up: the present condition and value of depreciable property has no bearing whatever upon corporate invested capital, nor is there any necessary relation between so-called depreciation allowances and changes in value of property to which such allowances relate. Tangible property may be included in invested capital at its full cost-value, no matter what its present condition and value is; but in certain cases, a portion of this cost-value must be deducted from invested capital. The cases referred to are those wherein the net assets which constitute the entire admissible invested capital, considered as an entity, were derived not only from paid-in capital but from earned surplus and undivided profits. In that event the amount representing the earned surplus and profits must be tested to see that a deduction has been made therefrom for the cost-value of property which has been used up and for a ratable share of cost-value (less estimated proceeds of final disposal) of property which remains in use, whose end is certain.

Stated in another way, no greater deduction from the earnings and profits accumulated by a corporation down to the taxable year is required, in the case of depreciable property, than would be required by a court of law in proceedings which involved the ascertainment of earnings and profits during the period—that is to say, the depreciation need not be based upon a value higher than cost-value.

Depletion of Natural Resources

The revenue act of 1918 provides that in computing taxable income there may be deducted a reasonable allowance for the depletion of natural resources, according to the peculiar conditions of each case, based upon cost, or in certain eventualities upon a higher value.

The interpretation which the treasury regulations give to depletion is that it involves the recovery or extinction or amortiza-

tion of a given capital sum out of income; and to this extent, and in this particular only, depletion is regarded as analogous to depreciation.

The treasury rule governing the allotment by years of the capital sum recoverable through depletion allowances is entirely different from the rule for the corresponding yearly allotment of depreciation of property. We have seen that the rule in the yearly allotment of depreciation requires a more or less equal share apportioned to each and every year of useful life. Specifically, the controlling factor is the time the wealth will last, in terms of consecutive years.

Nor is the allotment rule adopted by the treasury for depletion one which is accepted by accountants in apportioning to years any form of prepaid expenses, deferred charges to operation, bond discount or similar amortization, in all of which the number of consecutive years is controlling.

Neither did the treasury adopt an allotment rule for the depletion of natural deposits similar to that applied where a tract of land is purchased, divided into parcels and sold. The rule in that case requires an equitable apportionment of the capital sum among the several parcels and an extinguishment of the capital according to the respective lots sold. There are some analogies between the two classes of transactions which may not have received due consideration.

The treasury adopts as the governing rule in the yearly allotment of the capital sum representing the investment in natural resources the accounting method which would be applied to the ordinary purchase and consumption of a definitely known stock of materials (such as a quantity of pig iron or bricks or other commodity of uniform character and quality) which may be measured in its own special unit, the accessibility of each unit known within limits, the measurement of the three magnitudes of wealth (quantity, unit price and value) capable of being stated with reasonable accuracy, and where a diminution in quantity connotes a directly proportionate diminution in the fund capital. The allotment of the fund capital is made only to those years in which a diminution in quantity takes place, and the value extinguished in a given year is in direct proportion to the quantity removed during the year.

Certain investments in natural resources resemble closely the ordinary purchase and consumption of a stock of materials, and all the characteristics of such a transaction, as described above, are reproduced with reasonable approximation. The valuable content is known and determinable at the time of acquirement; it is the basis of the purchase; and there are no subsequent new discoveries.

But the great majority of investments in natural resources, particularly mineral deposits, do not fulfil originally the conditions or exhibit the characteristics of an ordinary purchase of a stock of materials for consumption in productive processes; the measurement of the three magnitudes of wealth (quantity, unit price and value) at the time of acquirement cannot be stated even approximately; nor is there a direct proportion between diminution in the number of valuable units and diminution in the nominal fund capital. In particular, these investments in mineral deposits frequently exhibit the phenomenon through long periods of time of a removal of large quantities of valuable contents unaccompanied by any shrinkage in the fund capital. The majority of these investments in natural resources contains two separate and distinct elements, the relative size of the elements varying with the character of the property and other extraneous conditions. One of these elements (the product in sight or reasonably certain) may resemble in some respects the ordinary purchase of a stock of materials; but the second element, frequently the larger of the two, is essentially different, for it is a speculation in future discoveries.

In order to put this latter class (the great majority) of investments in natural resources on a parity with the smaller class previously mentioned, and in order to maintain the analogy to the ordinary purchase and consumption of a stock of materials, the speculative element in the majority class has been specifically recognized in the revenue act of 1918, which provides that new discoveries of natural resources shall be taken into the reckoning of depletion at their fair market value at the date of discovery or within 30 days thereafter.

LAW: section 234 (a 9). In the case of mines, oil and gas wells, discovered by the taxpayer on or after March 1, 1913, and not acquired as the result of purchase of a proven tract or lease, where the fair market value

of the property is materially disproportionate to the cost, the depletion allowance shall be based upon the fair market value of the property at the date of the discovery or within thirty days thereafter.

The word mine has two different meanings, one being applied to a body of ore whether it is being worked or not and the other applying to the underground openings which furnish entry to the mine, facilitate searching for ore and open avenues for extraction. From the context of the law it is evident that the word mine is used in the sense of a commercially valuable deposit of ore or mineral, and this meaning is adopted in the regulations.

It is not so easy to decide the sense in which the term discovery is used in the statute, but evidently it must be read with the context calling for ascertainment of the fair market value of the property discovered, which demonstrates that the term imports the process of uncovering a commercially valuable deposit of ore or mineral through development, and not merely locating an ore body by prospecting.

Such discovery of mineral deposit is not limited to new prospects and mining claims, previously unproductive, but applies equally to development of unproved ore and minerals in a producing mine; for the statutory limitation excluding "purchase of a proven tract" (so far as the mining industry is concerned, where the term proven tract is unknown) can only apply to proved ore in a producing mining claim—that is to say, ore where there is practically no risk of failure of continuity.

Hence it follows that the term discovery as used in the statute, and applicable to mines, must apply to the development of all ore and mineral deposit beyond the range of vision and in the case of producing mines would cover the entire prospective value to be developed by extension of the deposit beyond a short distance from the last opening.

The development of this prospective value of a mineral deposit is a more or less continuous process, dependent upon a variety of conditions, such as the character of the deposit, the smelting or treatment capacity, the market for the product, the management, finance, business policy, etc. It follows that the discovery of commercial ore and minerals, whether in the prospecting or producing stage, is continuous in character, and the date of discovery (which the statute requires to be established) is an equally continuous affair.

All this is practical acceptance of the theory of depletion of mines set out at length by the writer in THE JOURNAL OF ACCOUNTANCY, August, 1918, in which it was contended that the fund capital to be returned is the intrinsic value of the content (in place, en bloc) which existed from the beginning, although much of it may have been latent, and determined only by "extension in depth"; and that the amount of depletion to be taken in each year during which valuable content is removed must be the number of units removed in the year multiplied by a more or less constant unit rate.

But while the original intrinsic value of the mineral deposit which existed from the beginning (in place, en bloc) is thus effectively recognized as the total fund capital to be returned through depletion allowances, on a basis of yearly allotment analogous to the accounting treatment for consumption of an ordinary stock of materials, this original intrinsic value has not yet been recognized by the regulations as invested capital for profits tax purposes. Under the regulations a corporation may not include the mineral property as invested capital at a greater sum than actual cost, if purchased for cash, or to a greater extent than the developed and ascertained value at the time of acquirement, if purchased for stock. It seems to us, however, that in these limitations upon invested capital the regulations do not interpret the statute reasonably; and that original intrinsic value of natural resources at the time of acquirement, whether actually known at the time or developed subsequently, is true paid-in surplus to the extent that original intrinsic value exceeds the nominal cost-value, and is admissible as invested capital under that sub-division.

Until this principle is accepted, however, there will remain constant discrepancies between cost-value of natural deposits (as invested capital) and intrinsic value of the same property (for depletion purposes), with the result of creating a question as to what constitutes "full recognition" of depletion from the time a corporation is organized down to the taxable year, as a charge against earned surplus and undivided profits claimed as a part of invested capital. Specifically the question is this: suppose the case of an investment in natural deposits acquired many years ago at a cost-value of $2,000,000 (invested capital) and suppose further an original intrinsic value of $50,000,000 which was not

fully established until later by new discoveries. Suppose further that one-half of the original intrinsic value has been removed by operations. In that event, is any diminution of the cost-value of $2,000,000 required by charge against profit and loss?

Obviously not, because depletion is calculated on the same principles as those applying to the consumption of a stock of materials; and until the last $2,000,000 of valuable content is removed there is no impairment of that purely nominal fund capital.

The $2,000,000 fund capital is an artificial creation, far removed from the reality of the intrinsic fund capital. Nevertheless, this artificial or nominal fund capital was the basis upon which the accounts were kept and was the basis upon which the profits were calculated which are now claimed as invested capital. It is the basis upon which the balance-sheet must be constructed, in order to verify the accumulated profits; for the natural deposit may not be taken in at a greater value than $2,000,000. The accumulated profits need not be diminished by depletion until the artificial and nominal fund capital is actually impaired by removal; and it is the last to be removed. Actual impairment of quantity and value is the basis of depletion. Therein it differs from depreciation, wherein the element of time is controlling.

In testing the earned surplus and undivided profits of a corporation from its organization down to the taxable year, in order to see that full recognition has been accorded throughout those years to the loss from depletion of natural resources, we do not see that any greater amount is called for than would be required by a court of law in any proceedings which involved stating the earnings of that period. The amount would be the ascertained impairment of the nominal fund capital, if impairment had taken place, and no more.

In conclusion, the true earned surplus and undivided profits of a corporation at a given date are the difference between the assets and unadjusted debits at that date, valued according to accepted accounting rules and excluding unearned increment, and the amount of the liabilities, unadjusted credits and nominal capital, similarly reckoned. So long as the statement conforms to accepted accounting practice, it need not be modified by rules

adopted specially for the administration of an income or profits tax measure. The revenue act of 1918, in allowing earned surplus and undivided profits as part of the invested capital of a corporation, does not qualify, limit or restrict the sense in which the terms earnings and profits are employed, and we must assume that they have their usual significance.

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EDITORIAL

Income Tax Inequities

Since the enactment of the first of the present series of income-tax laws in this country it has repeatedly been alleged in defence of the laws and their administration that we must not expect perfection at once, and that in the light of experience sharp edges would be worn off and rough places made plain.

It is now approximately six years since the enactment of a federal income-tax law in 1913, and it must be admitted that there has been a gratifying indication of a desire to improve both the form of the laws and the method of administering them. This is not to admit, however, that we have approached within hailing distance of perfection. Indeed, we are so far from it that few of us ever expect to realize our hopes.

There are one or two obvious injustices in the present system of laws which could be corrected without a great amount of amendment. If some of them were removed it would be greatly to the relief of the far too heavily burdened taxpayer.

It is well enough to pay heavy taxes during a time of war or in a period of reconstruction. We all expect to continue to pay taxes of an abnormally high character for some years to come, but we may justly feel that the government and congress should do everything in their power to place taxation upon as nearly fair a basis as can be discovered.

One of the glaring injustices of the present laws is the general classification of all increment as income. There are various sorts of increases in one's assets which may not be income in the true sense of the word.

For example, capital profits under the present laws are regarded in the same category as income from business or investment. This is not as it should be.

As an illustration, let us assume that A purchased in 1912 a piece of property for $10,000. In 1919 he received an offer of $50,000 for the property. Under the law, as it stands, A, if he sold the property, would be required to return $40,000 as income of the year 1919, when as a matter of fact the increment in value had been accruing from the date of purchase to the date of sale. In other words, A would be compelled to pay surtax at the highest rate ever called for in this country upon an increase in assets, only a portion of which had accrued during the period when such high taxes were in force.

Another illustration may be found in the case of the shareholders in corporations whose stocks are listed on public exchanges or otherwise the subject of sale. In 1912 stock in the Blank Steel Company may have been quoted at $40 a share. In 1919 it would be quite reasonable to expect such a company's shares to be selling in the neighborhood of $150. The shareholder might be anxious to sell his shares, but if he did so he would be obliged to return $110 a share as income of the year 1919, when in reality the advance in value had been in progress since the beginning of the war and had kept pace with the growth of demand for steel products.

We believe that accountants everywhere will agree that such profits as those mentioned in the foregoing illustrations should not be classified as income in the strict sense of the word—that is to say, income for the year of return. Perhaps the treasury would be ready to recommend an amendment of the law separating increases of capital value from ordinary income if the matter were properly presented to the department. With the experience which officers of the bureau of internal revenue have had it must be apparent to them that there is need for a revision of the laws so as to permit the bureau to differentiate between what might be called income of the year and capital profits.

Among earlier rulings of the department there were decisions which permitted profits of the kind mentioned to be prorated over the years from purchase to sale, but latterly there has been a

complete departure from this principle and all increment is regarded as pure income.

One of the most apparent and undesirable effects of the law in this particular was the recent bull market on stock exchanges throughout the country. It is generally admitted that while there has been justification for a considerable advance in quotations for stock of industrial companies, the advance has been out of proportion to the increase in intrinsic value of the shares. It is also recognized that one of the most potent factors in the advance has been the scarcity of stock. People who own shares of stock in the great industrials find themselves unwilling to take the profits which appear on paper because if they do so they will be compelled to pay surtax on an increase in value not entirely accruing during the year of return. The result is that enormous quantities of stock are held up by owners who would be glad to sell if they could do so without being compelled to part with practically all the profit. It may not be too much to say that if there had been some fair and easily computed tax on capital profits the number of shares available for investment would have been greatly increased and market prices would not have risen to a point at which many economists feel they are unsound.

It may not be stretching the point too far to attribute to the same cause part of the enormous increase in real estate values and the consequent increases in rentals. Persons who hold real estate upon which there is a paper profit of considerable magnitude cannot sell and realize any profit at all without adding enough to the already enhanced value to cover payment of income tax. To put it in another way, property values are now quoted at prices which will cover income tax up to the highest rate.

There have been various suggestions as to the manner in which taxation could be arranged to meet the necessities of the case. It has been proposed that there should be a pro-rated tax based upon the normal and surtaxes of each succeeding year and computed on the income returns of each individual or corporation concerned. This might be perfectly fair but it would probably require an entire college of actuaries to work out the computation, and when the result was reached no one would know whether it was right or wrong.

It seems to us that a fairer and more easily enforced law would be one which would separate annual profit from profit accruing over a series of years and providing that in the latter case a special rate, either low or high, as might be necessary, should apply, with the understanding, of course, that it should not be higher than an average of the taxes during the years from 1913 onward.

In the case of stocks the increment in price depends largely on the surplus. When a sale is made it would be fairer to impose a surtax based on the rates in force in the years when the surplus accrued. This would be in line with the 1917 law which so taxed dividends.

This is a matter which is of the utmost importance to all taxpayers, and therefore to accountants, and we bring it to the attention of our readers in the hope that some definite suggestions may be made which will appeal to the authorities in Washington.

Filing Tax Returns

It appears from recent rulings of the treasury department that there will be no general extension for the filing of income-tax returns except in the case of "absence or sickness." In such cases the rule which applied this year, namely, the payment of 25 per cent. of the estimated tax and presentation of a guess at the amount of taxable income on March 15th, will be followed, and the complete return may be filed within thirty days thereafter.

The experience of this year is likely to be duplicated in 1920. There may not be quite so much confusion in the compilation of returns nor such protracted delays in the issuance of forms, but the whole transaction is extremely complicated and there is no possibility whatever that all corporations in the country will be able to make their returns within the two and a half months provided by the law.

Last year extensions were not granted until the eleventh hour. Surely the treasury department could give attention to the matter now and thereby assist taxpayers to make their returns with proper care and without undue haste. The result would be to the benefit of the government, as well as to that of the taxpayer.

There is a further complication which will increase year by year. When the laws were first enacted taxpayers were inclined

to call upon lawyers, bankers and all sorts and conditions of men to make out their tax returns for them. It gradually became apparent, however, that the professional men most capable of handling the matter intelligently were the accountants, and the burden of tax preparation has been accumulating rapidly upon them. This year the amount of work was almost overwhelming, and in 1920 there is every reason to expect a further increase in the demand for accountants' services.

The profession is rendering a splendid service to the government and to the taxpayer, and it is only right to expect that the department charged with the administration of the law will co-operate to the utmost extent with the men upon whose shoulders chiefly falls the duty of tax return preparation.

The best solution of the difficulty is for the department to adopt last year's plans and accept tentative returns accompanied by twenty-five per cent. of the estimated amount shown. No detailed computation should be required. Thus the treasury will get its full twenty-five per cent. on time and six per cent. interest on the amounts by which income may be underestimated.

Income Tax Department

EDITED BY JOHN B. NIVEN

Perhaps the most important of the new rulings published in this number is the revision of articles 1566 and 1567 contained in T. D. 2924.

Where property is exchanged for stock it is made the uniform rule, in article 1566, that the transaction is a closed one and that there is always a profit or loss if the stock has a market value, this being deemed sounder law than the earlier rule by which, if the previous owner of the stock received 50% or more of the stock no gain or loss took place. Notwithstanding the reasons given for the revised ruling, we venture the opinion that its soundness may still be open to legal question.

Whatever the procedure adopted in uniting the properties of corporations, they and their stockholders fall, according to the new article 1567, within the rule that there is no taxable income if the consideration received is solely stock or securities of no greater par value than those surrendered. The term "reorganization" is made to cover all such corporate readjustments, if within the hands of the same interests to such a degree as to maintain the "affiliated" relationships defined in the act and requiring consolidated returns. How no-par-value stock figures in such comparisons is quickly settled if the controlling statute requires no minimum irreducible value to be set for it: its lack of denomination is accepted as giving it no "greater par or face value" than the surrendered issues. But if the laws require a minimum capital or amount of stock, the no-par-value stock is said to have a value representing "an aliquot part of such amount, proper account being taken of any preferred stock issued with a preference as to principal." Obviously the no-par-value common stock cannot always form "an aliquot part," an exact devisor, of the total stated capital or stock where the proportion of preferred stock to the total prevents the possibility of such ratio. Perhaps the term is misused, and "an integral part" or "a proportionate part" may be meant, but this point needs further clarification.

A ruling strained in its refinement is that (T. D. 2931) by which taxes payable for the taxable year 1918 are made deductible in computing invested capital on the dates when they would have been payable had the revenue act of 1918 been in force in 1918, with the modification that instalments that would have been due prior to February 25, 1919, are deemed payable on that date. Of course this rule does not apply to actual payments of additional taxes under the 1918 act imposed on corporations with fiscal years ending in 1918 which filed under the 1917 act. These additional taxes were payable in quarterly instalments beginning March 15, 1919.

The opinion concerning depreciation of intangibles expressed in the correspondence published in the last number of THE JOURNAL OF ACCOUNTANCY is now formulated in T. D. 2929 modifying article 163 of regulations

45. Intangibles acquired through capital outlay and having only a limited and calculable term of usefulness may be made the subject of a depreciation deduction.

Certain taxes that are not deductible are referred to in T. D. 2927 and 2937. Excise taxes paid to a state upon shares of stock owned by another corporation, the latter being the taxpayer, are not deductible by the latter, because paid for it, not by it. When taxes, or, more properly, assessments for local benefits, are for maintenance or repair, they can, if necessary to the conduct of business, be deducted as expenses, provided they are distinct from assessments for construction. The latter, as capital expenditures, are not deductible. The line between deductible and non-deductible taxes is determinable by whether or not they are levied for the general public welfare ratably on all property within the jurisdiction of the taxing body.

The new rule (article 443) regarding extensions of time by collectors is of first concern to accountants, in view of the approaching period for dealing with 1919 returns. It is only in cases of sickness or absence of essential officers that collectors are authorized to grant extensions, and then only for 30 days, requiring, in their discretion, tentative returns and payment of one-fourth of the tax. It may be taken from the opening sentence of the article, however, that, in other cases, if a genuine effort is made to file "as complete and final" a return as possible by the time set—and, of course, one-fourth of the tax being paid—taxpayers and their overburdened accountants may gain time for the elaborate accounting now required in the preparation of full returns.

T. D. 2922 contains the latest list of countries that do or do not reciprocate in allowing personal exemptions.

The other three decisions published are of minor importance and deal with matters of only occasional interest or of departmental routine.

TREASURY RULINGS

(T. D. 2920, September 15, 1919)

Providing for relief of domestic corporations which have assumed payment of income tax with respect to tax-free covenant bonds owned by nonresident aliens who are entitled to credits for personal exemption and dependents, but whose incomes from sources in the United States do not exceed such credits.

The final edition of regulations No. 45 is amended by inserting immediately after article 363, a paragraph which will be known as article 363a as follows:

ART. 363a. *Personal exemption of nonresident aliens.*—In case a nonresident alien is entitled to personal exemption and credits for dependents in accordance with paragraphs (c), (d), and (e), section 216 of the revenue act of 1918, and his gross income from sources in the United States, including bond interest, does not exceed his personal exemption and credits for dependents, a certificate, Form 1001B, should be executed and filed with the withholding agent, if any part of the gross income is derived from interest upon bonds of a domestic corporation which contain a tax-free covenant clause. The certificate may be filed with the withholding agent at the end of the calendar year but not later than February 1 of the succeeding year and all such certificates should be attached to the

annual list return, form 1013. The amount of tax due from the withholding agent, as shown by form 1013, may be reduced by two per cent. of the aggregate amount of interest payments made to the nonresident alien upon tax-free covenant bonds during the calendar year, and the amount of tax represented by the certificates, payment of which was assumed on monthly list return, form 1012, will not be included in the assessment against the withholding agent. The certificate may be filed only by a citizen or subject of the countries enumerated in paragraph (a) or (b) of article 307, as amended. In case tax in excess of a nonresident alien's tax liability has been withheld from interest upon bonds which do not contain a tax-free covenant clause, the nonresident alien should file or cause to be filed with the collector of internal revenue a return of his gross income from all sources within the United States, accompanied by a claim for refund on form 46.

(T. D. 2922, September 18, 1919)

Income tax.

Amending article 307, final edition of regulations 45, dealing with nonresident alien individuals entitled to personal exemption and credit for dependent.

The final edition of regulations 45 is amended by changing article 307 to read as follows:

ART. 307. *When nonresident alien individual entitled to personal exemption.*—(*a*) The following is an incomplete list of countries which either impose no income tax or in imposing an income tax allow both a personal exemption and a credit for dependents which satisfy the similar credit requirement of the statute: Argentina, Belgium, Bohemia, Bolivia, Bosnia, Brazil, Bukowina, Canada, Carinthia, Carniola, China, Chile, Cuba, Dalmatia, Denmark, Ecuador, Egypt, France, Galicia, Goritz, Gradisoa, Herzegovina, Istria, Lower Austria, Mexico, Montenegro, Moravia, Morocco, Newfoundland, Nicaragua, Norway, Panama, Paraguay, Persia, Peru, Portugal, Roumania, Russia (including Poles owing allegiance to Russia), Salzburg, Santo Domingo, Serbia, Siam, Silesia, Styria, Spain, Trieste, Tyrol, Upper Austria, Union of South Africa, Venezuela. (*b*) The following is an incomplete list of countries which in imposing an income tax allow a personal exemption which satisfy the similar credit requirement of the statute, but do not allow a credit for dependents: Bachka, Banat of Temesvar, Croatia, Salvador, India, Italy, Slavonia, Slovakia, Transylvania. (*c*) The following is an incomplete list of countries which in imposing an income tax do not allow to citizens of the United States not residing in such country either a personal exemption or a credit for dependents and, therefore, fail entirely to satisfy the similar credit requirement of the statute: Australia, Costa Rica, Great Britain and Ireland, Japan, The Netherlands, New Zealand, Sweden. The former names of certain of those territories are here used for convenience, in spite of an actual or possible change in name or sovereignty. A nonresident alien individual who is a citizen or subject of any country in the first list is entitled for the purpose of the normal tax to such credit for a personal exemption and for dependents as his family status may warrant. If he is a citizen or subject of any country in the second list, he is entitled to a credit for personal exemption, but to none for dependents. If he is a citizen or subject of any country in the third list, he is not entitled to credit for either a personal exemption or for dependents. If he is a citizen or subject of a country which is in none of the lists, then to secure credit for either a personal exemption or for dependents he must prove to the satisfaction of the commissioner that his country does not impose an income tax, or that in imposing an income tax it grants the similar credit required by the statute.

(T. D. 2923, September 24, 1919)

Revised forms of ownership certificates.

Authorizing debtor corporations and withholding agents to accept old forms of ownership certificates with respect to interest due on and prior to November 1, 1919, when received from continental United States and with respect to interest due on and prior to December 1, 1919, when received from abroad.

(1) In view of the fact that the revised forms of ownership certificates were placed at the disposal of the public over three months ago, this office is of the opinion that a reasonable period of time has elapsed in which to permit the public to have become familiar with them. In order, however, to prevent inconvenience to individuals and organizations required to use such forms, old forms of ownership certificates will be accepted with respect to interest due on and prior to November 1, 1919, when received from continental United States, and with respect to interest due on and prior to December 1, 1919, when received from abroad.

(2) Banks and collecting agents, debtor corporations, and withholding agents shall refuse to accept the old forms, in connection with interest due, after the respective dates named herein, and collectors of internal revenue receiving monthly returns accompanied by certificates on the old forms, when it shall appear that such certificates were filed with debtor corporations or withholding agents, with respect to interest due subsequent to such dates, shall require the debtor corporation or withholding agent concerned to secure certificates on the revised forms.

(3) In order that the fulfillment of the requirements herein provided may cause as little hardship as possible to individuals, banks, collecting agents, debtor corporations, etc., collectors should satisfy themselves that they have a sufficient supply of the revised forms on hand to meet anticipated demands, and where the supply is not deemed sufficient, requisition should be made without delay for such additional quantity as may be necessary. Collectors are requested to disseminate this information throughout their districts as quickly as possible.

(T. D. 2924, September 26, 1919)

Income and excess-profits taxes.

Revenue act of 1918—Modification of articles 1566 and 1567 of regulations 45.

(1) Article 1566 of regulations 45, first authorized April 17, 1919, is considered as not being warranted in law, and is hereby modified to read:

ART. 1566. *Exchange of property and stock.*—Where property is transferred to a corporation in exchange for its stock, the exchange constitutes a closed transaction and the former owner of the property realizes a gain or loss if the stock has a market value, and such market value is greater or less than the cost or tne fair market value as of March 1, 1913 (if acquired prior thereto), of the property given in exchange. For the rule applicable where a corporation, in connection with a reorganization, merger, or consolidation, exchanges property for stock, see article 1567.

(2) Article 1567 of regulations 45, as amended by T. D. 2870, is amended to read as follows:

ART. 1567. *Exchange of stock for other stock of no greater par value.*—In general, where two (or more) corporations unite their properties, by either (*a*) the dissolution of corporation B and the sale of its assets to corporation A, or (*b*) the sale of its property by B to A and the dissolution of B, or (*c*) the sale of the stock of B to A and the dissolution of B, or (*d*) the merger of B into A, or (*e*) the consolidation of the cor-

porations, no taxable income is received from the transaction by A or B or the stockholders of either, provided the sole consideration received by B and its stockholders in (*a*), (*b*), (*c*), and (*d*) is stock or securities of A, and by A and B and their stockholders in (*e*) is stock or securities of the consolidated corporation, in any case of no greater aggregate par or face value than the old stock and securities surrendered. The term "reorganization," as used in section 202 of the statute, includes cases of corporate readjustment where stockholders exchange their stock for the stock of a holding corporation, provided the holding corporation and the original corporation, in which it holds stock, are so closely related that the two corporations are affiliated as defined in section 240(b) of the statute and article 633, and are thus required to file consolidated returns. So-called "no-par-value stock" issued under a statute or statutes which require the corporation to fix in a certificate or on its books of account or otherwise an amount of capital or an amount of stock issued which may not be impaired by the distribution of dividends, will for the purpose of this section be deemed to have a par value representing an aliquot part of such amount, proper account being taken of any preferred stock issued with a preference as to principal. In the case (if any) in which no such amount of capital or issued stock is so required, "no-par-value stock" received in exchange will be regarded for purposes of this section as having in fact no par or face value, and consequently as having "no greater aggregate par or face value" than the stock or securities exchanged therefor.

(T. D. 2925, September 26, 1919)

Income and profits taxes.

Bonds under sections 214 (a) (12), 234 (a) (14), and 1320 of the revenue act of 1918.

Sections 214 (a) (12) and 234 (a) (14) of the revenue act of 1918 provide in part as follows:

At the time of filing return for the taxable year 1918 a taxpayer may file a claim in abatement based on the fact that he has sustained a substantial loss (whether or not actually realized by sale or other disposition) resulting from any material reduction (not due to temporary fluctuation) of the value of the inventory for such taxable year, or from the actual payment after the close of such taxable year of rebates in pursuance of contracts entered into during such year upon sales made during such year. In such case payment of the amount of the tax covered by such claim shall not be required until the claim is decided, but the taxpayer shall accompany his claim with a bond in double the amount of the tax covered by the claim, with sureties satisfactory to the commissioner, conditioned for the payment of any part of such tax found to be due, with interest.

Section 1320 of the same act provides, in part:

That wherever by the laws of the United States or regulations made pursuant thereto, any person is required to furnish any recognizance, stipulation, bond, guaranty, or undertaking, hereinafter called "penal bond," with surety or sureties, such person may, in lieu of such surety or sureties, deposit as security with the official having authority to approve such penal bond, United States Liberty bonds or other bonds of the United States in a sum equal at their par value to the amount of such penal bond required to be furnished, together with an agreement authorizing such official to collect or sell such bonds so deposited in case of any default in the performance of any of the conditions or stipulations of such penal bond. The acceptance of such United States bonds in lieu of surety or sureties required by law shall have the same force and effect as individual or corporate sureties, or certified cheques, bank drafts, post-office money orders, or cash, for the penalty or amount of such penal bond. The bonds deposited hereunder and such other United States bonds as may be sub-

stituted therefor from time to time as such security, may be deposited with the Treasurer * * * of the United States, * * * which shall issue receipt therefor, describing such bonds so deposited. As soon as security for the performance of such penal bond is no longer necessary, such bonds so deposited shall be returned to the depositor.

Article 268 of regulations No. 45 provides in part as follows relative to claims for losses in inventory and from rebates:

In the case of a claim in abatement filed with a return payment of the amount of the tax covered thereby shall not be required until the claim is decided, provided the taxpayer files therewith a bond on form 1124 in double the amount of the tax covered by the claim, conditioned for the payment of any part of such tax found to be due, with interest at the rate of 12 per cent. per annum. The bond shall be executed by a surety company holding a certificate of authority from the secretary of the treasury as an acceptable surety on federal bonds and shall be subject to the approval of the commissioner.

The bond executed on form 1124, pursuant to article 260 of regulations No. 45, together with the abatement claim, should be forwarded by the collector to the commissioner of internal revenue. When it is received by the commissioner, it will be detached from the abatement claim and forwarded to the surety bond section of the treasury department for certification as to the sufficiency of the sureties. The surety bond section will, after certification, return the bond to the commissioner for his approval. When he has approved the bond he will cause it to be attached to the abatement claim.

In case the claimant, in accordance with the provisions contained in section 1320 of the revenue act of 1918, elects to offer in lieu of the surety or sureties provided for on form 1124 United States Liberty bonds, or other bonds of the United States, as security, he should execute in duplicate a bond and agreement on form 1124a, prescribed below. The original should accompany the United States bonds offered as security; the duplicates should be forwarded by the collector with the abatement claim to the commissioner. If such bond and agreement is executed by a corporation, a duly certified copy of the resolution of the board of directors authorizing the execution should be attached. The United States Liberty bonds or other bonds of the United States offered as security shall at their par value be not less than the amount of the penal sum of the bond executed on form 1124a, which shall be in double the amount of the tax covered by the abatement claim. The bonds so offered as security must be delivered to the commissioner of internal revenue at the obligor's risk and expense. Coupon bonds can not safely be forwarded by registered mail unless insured by the obligor against risk of loss in transit. Registered bonds so offered as security must be registered in the name of the obligor and duly assigned to the commissioner of internal revenue at or before the date of deposit with the commissioner and need not be insured when forwarded by registered mail unless the obligor so elects. In connection with effecting insurance of bonds shipped, reference is made to article 187 (a) of regulations No. 2, revised.

The commissioner of internal revenue will issue a receipt in duplicate for United States bonds so deposited with him as security, the original of the receipt to be given to the obligor and the duplicate to be retained by the commissioner for his files. Upon receipt by the commissioner of the United States bonds so offered as security and upon satisfying himself as to their ownership and as to the sufficiency of the agreement for him to collect or sell, and in case of registered bonds as to the regularity of the assignments, he will approve the bond executed on form 1124a, and deposit the United States bonds offered as security with the treasurer of the United States, as provided in paragraph 7 of department circular No. 154 (1919), dated June 30, 1919, and the treasurer of the United States

will, as provided in said circular, give receipt therefor in duplicate, describing the bonds so deposited, the original to be delivered to the commission of internal revenue and the duplicate to be retained by the Treasurer for his files.

Bonds of the United States shall be returned to the obligor as soon as the security for the performance of such penal bond is no longer necessary. Registered bonds shall be reassigned to the owner when the liability is cancelled.

These special instructions are prescribed for the guidance of collectors of internal revenue pursuant to the provisions of treasury department circular No. 154 as to the acceptance of United States bonds in lieu of surety or sureties on penal bonds.

(T. D. 2927, September 30, 1919.)

Special excise tax on corporations—Decision of court.

DEDUCTIONS FROM GROSS INCOME—TAXES PAID ON BEHALF OF CORPORATION

Taxes paid to a state by various corporations upon shares of their stock owned by another corporation are not deductible from gross income of this latter corporation as taxes "paid by it," such taxes being not paid by this corporation, but being paid in its behalf by other corporations.

The appended decision of the United States district court for the district of Connecticut in the case of the *United States v. Aetna Life Insurance Co.* is published for the information of internal-revenue officers and others concerned.

UNITED STATES DISTRICT COURT, DISTRICT OF CONNECTICUT

United States, plaintiff, v. Aetna Life Insurance Co., defendant.

GARVIN, Judge: This action is submitted to the court for determination upon an agreed state of facts. It appears that the defendant, an insurance company incorporated under the laws of the state of Connecticut, was subject to pay annually during the years 1909, 1910, and 1911, with respect to the carrying on and doing of its business, the excise tax imposed by section 38 of the act of congress approved August 5, 1909, and was subject in all respects to the provisions of that section.

On or before March 1 in each of these years the defendant duly made its return to the collector of internal revenue in the proper district in the form prescribed by the commissioner of internal revenue as required by said section, which returns showed that the net income of the defendant for each of these three years exceeded $5,000.

On or about June 1 of the years 1910, 1911, and 1912 an excise tax under said act was duly assessed against the defendant for the years ending December 31, 1909, 1910, and 1911, respectively, said tax being 1 per cent. on the net income of the defendant. The tax was in each case paid as assessed.

When the defendant filed its return showing its net income for the year ending December 31, 1909, it deducted $479,625 as "taxes paid during the year ending December 31, 1909, imposed under authority of the United States or states and territories thereof." Of this sum it is conceded that $409,967.36 was lawfully deducted. It is claimed by the plaintiff that defendant should also have paid a tax of 1 per cent. on the remainder, $69,637.64, i. e., $696.56. Of the latter sum defendant admits liability to the extent of $227.62, leaving $468.96 in dispute. The amount admitted for 1910 is $343.17, $413.41 being in dispute. For 1911, $543.28 is admitted, $527.60 being in dispute. These sums in dispute represent taxes paid by various corporations upon shares of their stock owned by defendant, which taxes were imposed during the several years 1909, 1910, and 1911 by the state of Connecticut under chapter 54 of the public acts of 1905.

The deductions allowed a corporation by the act of August 5, 1909, include, "all sums paid by it within the year for taxes imposed under authority of the United States or of any state or territory thereof, or imposed by the government of any foreign country as a condition to carry on business therein." The taxes in question were not paid by the defendant, but in its behalf by other corporations.

While it is true that "a statute providing for the imposition of taxes is to be strictly construed, and all reasonable doubts in respect thereto resolved against the Government and in favor of the citizen" (*Mutual Benefit Life Insurance Co. v. Herold,* 198 Fed., 199, and cases therein cited), no doubtful meaning is here involved. The language of the act is clear and explicit. The allowable deductions in the case of a domestic corporation are plainly set forth.

Deductions allowed from gross income in the case of a domestic corporation:

Second. Such net income shall be ascertained by deducting from the gross amount of the income of such corporation, joint stock company or association, or insurance company, received within the year from all sources.

(First) all the ordinary and necessary expenses actually paid within the year out of income in the maintenance and operation of its business and properties, including all charges such as rental or franchise payments, required to be made as a condition to the continued use or possession of property;

(Second) all losses actually sustained within the year and not compensated by insurance or otherwise, including a reasonable allowance for depreciation of property, if any, and in the case of insurance companies the sums other than dividends, paid within the year on policy and annuity contracts and the net addition, if any, required by law to be made within the year to reserve funds;

(Third) interest actually paid within the year on its bonded or other indebtedness not exceeding the paid-up capital stock of such corporation, joint stock company or association, or insurance company, outstanding at the close of the year, and in the case of a bank, banking association or trust company, all interest actually paid by it within the year on deposits.

(Fourth) all sums paid by it within the year for taxes imposed under the authority of the United States or of any state or territory thereof, or imposed by the government of any foreign country as a condition to carry on business therein;

(Fifth) all amounts received by it within the year as dividends upon stock of other corporations, joint stock companies or associations, or insurance companies, subject to the tax hereby imposed.

If it had been the intention to permit such a deduction as defendant urges, the act would have provided that there be included "all sums paid by it or in its behalf within the year."

Defendant relies upon a decision by the treasury department rendered March 24, 1916, reading in part:

You are advised that when a corporation pays taxes for its stockholders, such payments represent a portion of the earnings of the corporation, which instead of being distributed to the stockholders in the form of dividends is used in payment of taxes which the stockholders individually owe. Should you instead of paying the taxes, pay over this sum to the stockholders, the stockholders would be required to return the amount as income received, and would then be entitled to deduct the same under the item of taxes paid during the year. Under the excise tax law a stockholder which is a corporation is entitled to deduct from gross income all dividends received from another corporation subject to tax, and therefore is entitled to deduct as a dividend that portion of the earnings of the corporation in which it owns stock, which is represented by the stock-

holder's tax. For the years 1909 to 1912, inclusive, therefore, the corporation which is a stockholder will be entitled to an additional deduction on account of the taxes paid for it by the corporation issuing the stock, for the reason that it produces the same result as if the corporation owning the stock was required to return as income for these years the full amount of the dividend, including that portion of the dividend diverted to pay tax, and then took credit as a deduction for this entire amount under the item of dividends received from other corporations, and also took credit for the amount of taxes paid under that item. Under the income-tax law, however, a corporation is not entitled to deduct from gross income dividends received from other corporations. Consequently if it claims the benefit of deducting from gross income taxes paid for it by another corporation it must include such amount in income as the deduction counterbalances the receipt. As you, the stockholder in this case, did not return as income the amount in question, you are not entitled under the income-tax law to deduct the same. The claim on account of the tax assessed for the year 1913 is accordingly rejected, and you will find inclosed notice of demand for payment of this tax.

The claim for the abatement of the additional tax assessed for 1912 has received favorable consideration for the reason above stated.

This decision points out that a corporation making a claim such as is advanced by defendant must have included in its return as income the taxes which were paid in its behalf by other corporations. No such return was made by defendant herein, therefore the decision is not in point even if it were controlling on the court.

There was no refusal or neglect to make a return within the meaning of the act and therefore no penalty will be allowed.

Judgment for plaintiff for $2,524.04, with interest from June 9, 1915.

(T. D. 2929, October 7, 1919.)

Income and excess-profits taxes.

Depreciation of intangible property—Modification of article 163, regulations No. 45.

Article 163, regulations No. 45, is modified to read as follows by eliminating therefrom the last sentence, reading, "there can be no such allowance in respect of good will, trade names, trade-marks, trade brands, secret formulas, or processes":

ART. 163. *Depreciation of intangible property.*—Intangibles, the use of which in the trade or business is definitely limited in duration, may be the subject of a depreciation allowance. Examples are patents and copyrights, licenses and franchises. Intangibles, the use of which in the business or trade is not so limited, will not usually be a proper subject of such an allowance. If, however, an intangible asset acquired through capital outlay is known from experience to be of value in the business for only a limited period, the length of which can be estimated from experience with reasonable certainty, such intangible asset may be the subject of a depreciation allowance, provided the facts are fully shown in the return or prior thereto to the satisfaction of the commissioner.

(T. D. 2931, October 7, 1919.)

Excess-profits tax.

Amendment of article 845, regulations 45.

The final edition of regulations 45 is amended by inserting immediately after article 845 a paragraph to be known as article 845(a), as follows:

ART. 845(a). *Surplus and undivided profits; reserve for* 1918 *income and excess-profits taxes of corporations having a fiscal year.*—In the case of corporations having a fiscal year, the federal income and profits taxes

for the taxable year 1918 shall, for the purpose of computing invested capital for the taxable year 1919 be deemed to become due and payable as follows: (*a*) As to such amounts as became due and payable prior to February 25, 1919, under the provisions of section 14(a), revenue act of 1916, such law shall govern; (*b*) in all other respects the provisions of section 250 of the revenue act of 1918 shall govern except that the instalments which would become due prior to February 25, 1919, shall be deemed to become due and payable on that date; (*c*) any amounts which became due and payable under said section 14(a) prior to February 25 shall, so far as possible, be deemed to cancel the earlier instalments payable under said section 250. For example, a corporation whose fiscal year ended August 31, 1918, is assessed a total income and profits tax under the 1917 law of $250,000 and an additional tax under the 1918 law of $110,000. The total tax of $360,000 would, for the purpose of computing invested capital, be deemed to become due and payable as follows: February 15, 1919, $250,000; May 15, 1919, $20,000; August 15, 1919, $90,000. If, assuming the same taxes, the fiscal year ended September 30, 1918, the total tax would, for the purpose of computing invested capital, be deemed to become due and payable as follows: February 25, 1919, $90,000; March 15, 1919, $90,000; June 15, 1919, $90,000; September 15, 1919, $90,000. The provisions of this article apply solely for the purpose of computing invested capital and do not affect the provisions of T. D. 2797 in regard to the time and manner of paying taxes where corporations have filed returns for fiscal years ending in 1918.

(T. D. 2935, October 16, 1919.)

Income tax.

Failure to file final returns where tentative returns have been filed—Article 443 of regulations amended.

Section 1309 of the revenue act of 1918 (approved Feb. 24, 1919) provides in part as follows:

That the commissioner, with the approval of the secretary, is hereby authorized to make all needful rules and regulations for the enforcement of the provisions of this act.

In pursuance of the foregoing provision of law, article 443 of regulations 45 is hereby amended to read as follows:

ART. 443. *Extension of time by collector.*—It is important that the taxpayer render before the return due date a return as complete and final as it is possible for him to prepare. However, in cases of sickness or absence collectors are authorized to grant an extension of not exceeding 30 days where, in their judgment, such further time is actually required for the making of an accurate return. (See article 1002.) The application for such extension must be made prior to the expiration of the period for which the extension is desired. The absence or sickness of one or more officers of a corporation at the time the return is required to be filed will not be accepted as a reasonable cause for failure to file the return within the prescribed time unless it is satisfactorily shown that there were no other principal officers available and sufficiently informed as to the affairs of the corporation to make and verify the return. As a condition of granting an extension of time for filing a return, the collector may require the submission of a tentative return and estimate of the tax on form 1040-T in the case of individuals, or on form 1031-T in the case of corporations, and the payment of one-fourth of the estimated amount of tax. Where a taxpayer has filed a tentative return and has failed to file a complete return within the period of the extension requested by him, the complete return when filed is subject to penalties prescribed for delinquency. Where a tentative return has been filed and no time has been fixed within which a complete return must be filed, the collector may at

any time send notice to the taxpayer to file a complete return within a period of time therein specified by him, and a taxpayer who fails to comply with such request will incur the penalties prescribed by statute for delinquency in filing a return.

(T. D. 2937, October 16, 1919)

Income tax—Assessments for drainage.

Article 133 of regulations 45 is hereby amended to read as follows:

Art. 133. *Taxes for local benefits.*—So-called taxes, more properly assessments, paid for local benefits, such as street, sidewalk, and other like improvements, imposed because of and measured by some benefit inuring directly to the property against which the assessment is levied, do not constitute an allowable deduction from gross income. A tax is considered assessed against local benefits when the property subject to the tax is limited to the property benefited. Special assessments are not deductible, even though an incidental benefit may inure to the public welfare. The taxes deductible are those levied for the general public welfare by the proper taxing authorities at a like rate against all property in the territory over which such authorities have jurisdiction. Assessments under the statutes of California relating to irrigation and of Iowa relating to drainage, and under certain statutes of Tennessee relating to levees, are limited to property benefited, and when it is clear that the assessments are so limited, the amounts paid thereunder are not deductible as taxes. When assessments are made for the purpose of maintenance or repair of local benefits, the taxpayer may deduct the assessments paid as an expense incurred in business, if the payment of such assessments is necessary to the conduct of his business. When the assessments are made for the purpose of constructing local benefits, the payments by the taxpayer are in the nature of capital expenditures and are not deductible. Where assessments are made for the purpose of both construction and maintenance or repairs, the burden is on the taxpayer to show the allocation of the amounts assessed to the different purposes. If the allocation can not be made, none of the amounts so paid is deductible.

Haskins & Sells announce the opening of an office in Shanghai, China, on or about March 1, 1920, under the management of Henry S. DeVault.

Hood & Strong announce the removal of their offices to the Newhall building, 260 California Street, San Francisco.

MacHugh & Garretson announce the removal of their offices to the Vulcan building, 277 Pine street, San Francisco.

Loomis, Suffern & Fernald announce that J. S. M. Goodloe has become a member of the firm.

J. Pryse Goodwin announces the opening of an office at 25 Church street, New York.

Schindler & Naren announce the opening of offices at 1211 Chestnut street, Philadelphia.

Students' Departr

Edited by Seymour Walton
(Assisted by H. A. Finney)

Stock With No Par Value

There are four expressions used in regard to the capital stock of a corporation with reference to its value per share:

(a) Face value, which is the amount shown on the face of the stock certificate. This is also called the par value of the stock. It is usually $100.00 a share, but may be any amount from one dollar up to one thousand dollars.

(b) Book value, or the value which is shown by the books. In ascertaining this value all the items on the balance-sheet are taken at their worth as they are listed. As the company belongs to the owners of the capital stock, the value of the total stock is manifestly the excess of the assets over the liabilities—in other words the net worth of the business. Since this excess is represented by the amount of the capital stock plus the accumulated profits, or surplus, the book value of each share is found by dividing the sum of the capital stock and surplus by the number of shares outstanding. If the company has made net losses instead of profits, the number of shares must be divided into the amount of the capital stock minus the deficit. The book value of each share is the amount the stockholders would receive for each share held by them if the assets could be realized at the values shown on the balance-sheet and if there were no more liabilities than were therein expressed.

(c) Real value. As the book value is ascertained from the balance-sheet, the real value is determined by a statement of affairs in which the assets are valued at the amounts which they may be expected to realize, without any regard to the values placed on them on the books. If the net free assets are in excess of the total unsecured liabilities, the amount of this excess divided by the number of shares will express the real value of each share. Of course, it must be remembered that the term "real" is relative only, being based on the opinion of those best calculated to judge the actual value of the assets. The true real value can be ascertained only by liquidating the company so that the net worth will be represented by actual cash.

(d) Market value is that for which the stock will sell. This may be different from any of the other values. While it is based primarily on the estimate of investors as to its real value, it is largely affected by the earning capacity of the company. If the business of a company is prosperous and is likely to continue to be so, an investor will often pay much more than the real value for its shares on account of the large returns he expects to receive on his investment in the form of dividends. On the

other hand if a company is making little or no profits, the market value of the stock is likely to be low, although its assets may be undoubtedly good, because an investor does not care to buy stock which will not yield him an income.

In the last analysis of the matter a share of stock represents an undivided interest in the net worth of the company proportionate to the number of shares issued. The true value is not necessarily represented by the number of dollars which appear on the stock certificate. In fact the value on the face of the certificate is seldom any criterion of the true value. So accustomed have people become, however, to considering that a stock certificate calling for ten shares of stock of one hundred dollars each really represents one thousand dollars, that it is difficult for them to realize that such a certificate in a company whose total capital stock is one hundred thousand dollars really represents an undivided one per cent. of the net worth of the company, whatever that may be.

A number of years ago, John Grant Dater, speaking of the report of the Railways Securities Commission, said:

"Most of the evils of which investors and the public complain, according to the commission, have grown out of the attempt to give to stock a face value in terms of money. That is, because a certificate bears on its face words or characters representing one hundred dollars, people persist in regarding it as the equivalent of such a value, whereas the true value may be something wholly different, and may range far above or far below the indicated figures.

"The commission would remove the dollar mark entirely from the face of a share of stock, making these certificates of interest in the property. Such certificates, it points out, would represent the true value of a property at all times more nearly than under the present system.

"To illustrate: why should a property of problematical worth be capitalized, let us say, at twenty-five million dollars, represented by two hundred and fifty thousand shares of one hundred dollars par, with the shares selling in the market at ten dollars, or some such price? The figures on the face are not representative of true value. Would it not be better to issue against such property two hundred and fifty thousand certificates of interest which would fetch their worth in the market at all times?

"Nominal figures of capitalization do not make a property worth more or less, but excessive nominal capitalization, when it is mistaken or confused with true value, works a deception upon investors and the public. It leads to the charge, when the railways want to raise rates, that they are doing so to maintain dividends on watered stocks. It has also proved a real detriment to many corporations in attempting to secure needed funds for development."

Undoubtedly the original idea in forming a corporation was that the capitalization should represent actual value. It is pertinent to inquire why there was not adherance to that idea. The first deviation from it was including among the assets fictitious values ascribed to such things as patents, franchises or goodwill, although on the face of it this was not a deviation since the capital purported to represent value of some kind, and a certificate of interest would not differ in value from a certificate for shares of stock. The practice that causes the most mischief is that of issuing stock at a discount, whether it is original stock or treasury stock. It would seem that if it were desired to raise $200,000 with which to

develop a mine the logical procedure would be to issue 200,000 shares at one dollar each and to sell them at par. Why does the company think it necessary to issue two million shares of a par of one dollar and to sell them at prices ranging perhaps from five cents to twenty-five cents each?

One reason is found in the universal love for a bargain. This is generally considered to be a characteristic of members of the gentler sex, but it is by no means confined to them. To many men as well as women the temptation to acquire one thousand dollars of stock for fifty or one huntred dollars is irresistible. Although many of them really know better, calling tor rid themselves of the idea that a nicely engraved certificate fore vastly grebousand dollars is actually one thousand dollars. There-bargain stock than counts of money can be realized from the sale of par. btained by selling the stock on the basis of

Arthur Train makes Mr. Tutt seem to like better than anything else in e are two things that women tificates." He could easily have added a third —babies and stock cer-stated that when a stock certificate and a bargain are and could have attraction is irresistible, and he need not have confined in one the women. k to

Another reason for the practice is the ease with which a substan increase can be made in the price at which stock is being sold by the promoters by what is apparently a trivial increase in the quotation. On stock with a par of one dollar, five cents is only five per cent., and five per cent. is a very small proportion to add to the price of the stock. But if the stock has been selling at ten cents a share an addition of five cents is really an increase of fifty per cent. The shrewd promoter takes advantage of this difference to urge immediate purchase when the stock is selling at ten cents by stating that the price is soon to be advanced fifty per cent., but when the stock has been advanced he consoles a new customer by calling the advance only five per cent.

Still another reason is that it is far easier to sell stock at a discount than at a premium when the time comes to unload the promotion stock. That is, when the project has become a sufficient success apparently to justify the belief that it will be a permanently paying proposition, it is easier to sell the stock which has been issued on the basis of ten cents at 75 per cent. of its face than it would be to dispose of full paid stock at 750 per cent. Yet in actual money it amounts to the same thing. If the capitalization has been for two million shares at a par of one dollar and the promoter has donated half of it to be sold at ten cents a share, he can offer his own stock when the time comes at the bargain price of seventy-five cents a share. If the company had been capitalized with two hundred thousand shares, none to be sold at less than par, he would be obliged to ask seven dollars and fifty cents a share to realize the same amount. Where it might be easy to sell one thousand shares for seven hundred and fifty dollars, it would be difficult to sell one hundred shares for the

same seven hundred and fifty dollars. It is useless to say that the purchaser gets the same value for the same money in each case; there is a fascination about one transaction that the other does not possess.

Any one who has had any experience with promoters, especially those who are exploiting gold or other mines, knows that this is a correct statement of the case. Even persons who are considered hard-headed business men yield to the fascination of acquiring something for a little better than nothing. The list of stockholders in any shrewdly promoted company will contain the names of many who would not ordinarily be clas[illegible] "suckers."

It is not intended to imply that all persons who a[illegible]ed in selling mining or other promotion stocks at heav[illegible] are intentionally deceiving their customers. On the cont[illegible] are more often than not men who fully believe in the gre[illegible] that they claim their propositions contain.

It is impossible t[illegible] much money is lost by subscribers to stock in companies [illegible]er get beyond the stock-selling stage, but a low estimat[illegible] more than one hundred million dollars a year in the U[illegible]. Many of these companies are pure and simple fakes, but [illegible] of them are founded on facts plausible enough to prevent the sale of their stock from being interfered with by blue-sky laws or the regulations of the post-office.

The best protection for the ignorant purchaser of such stocks is to be found in some method that will force him to investigate the value of what he is buying. The plan recommended by the Railways Securities Commission is a long step in that direction. A man who is offered one thousand dollars of stock in a two million dollar mining company for one hundred dollars may think that he is getting a great bargain. He would not be so likely to purchase if he were offered a certificate of interest calling for one-twentieth of one per cent. of the assets and prospects of the company. He would then be more particular to inquire as to the value of the assets and prospects, for he would realize how small a portion of them he was actually obtaining.

To meet the situation a number of the states have passed laws authorizing the issue of stock with no par value, which is virtually the same as the certificates of interest recommended by the Railways Securities Commission. The number of shares is fixed, but the amount that must be paid on each share is left to the discretion of the organizers and directors of the company, except that it must not be less than a minimum, which is usually five dollars. The certificate of stock states the number of shares represented by it, but does not express any value per share. The result is that the corporation closely resembles a partnership whose members share profits in the proportion of their investments, either original or since acquired.

There are several interesting questions that arise in discussing stock of this character. Naturally the first is as to the value of the stock. In order to ascertain the value per share it is imperative that the number of

shares outstanding shall be expressed on the balance-sheet. Even the most ignorant stockholder must realize that he owns that portion of the enterprise that is represented by a fraction of which the number of shares he holds is the numerator and the total number of shares outstanding is the denominator. His proportionate interest being thus determined, he is inevitably led to inquire as to what constitutes the property of which he owns an undivided fraction. Even if he realizes that this property is the net worth of the business represented by the paid-in capital and the subsequently acquired profits, he will get a good idea of the real value of his stock. The assets may be overvalued, but there is no reason for including among them purely fictitious items like patents, franchises and goodwill, which are necessary in the fixed capital companies in order to make the net assets balance the capitalization. The fictitious items not having been paid in could not get on the books, because the capital stock is issued only for the amount of cash or other assets contributed.

However, this would not prevent the giving of stock to a promoter for services valued at the proper amount to represent the stock. That is, if the stock is being issued at sixty dollars a share, the promoter may value his services at sixty thousand dollars and be given one thousand shares to represent them. A scrutiny of the assets would still be necessary, but that scrutiny is much more apt to be given when the stockholder realizes that he owns an undivided fractional interest in the assets rather than a specified number of dollars.

In the balance-sheet the capital stock would show at the amount that had been paid in. Thus if a company is organized with an authorized capital of 5,000 shares of which 3,000 had been paid for at the agreed price of $60.00 each, the balance-sheet would read

Capital stock 3,000 shares		180,000.00

It could not be shown as it might be in a fixed capital company

Capital stock	300,000.00	
Less unsubscribed	120,000.00	
		180,000.00

because the unsubscribed 2,000 shares have no par value and may finally be subscribed for on a basis entirely different from $60.00.

However, if 3,000 shares had been subscribed for and they had not all been paid up, the statement could be

Capital stock, 3,000 shares	180,000.00	
Less unpaid	45,000.00	
		135,000.00

leaving it in doubt whether $45.00 had been paid on each of the 3,000 shares, or 2,250 shares had been paid in full and 750 shares had paid nothing, or all had paid something and some had paid in full. If it were desired to show the exact condition, it would be necessary to say:

Capital stock 3,000 shares, viz.:		
1800 shares in full	108,000.00	
1200 shares not paid in full	27,000.00	
		135,000.00

The next question that arises concerns the treatment of profits when they are made. If the company with 3,000 shares at $60.00 should make $15,000.00, either of two dispositions of the surplus is possible. It may be credited to capital or to surplus. If credited to surplus it may afterwards be used in payment of dividends if so desired. If credited to capital the entry would be legitimate because there being no fixed par value, it is not necessary to keep the capital stock account at any fixed figure. However, the crediting of the profits to capital would probably act in the same way as does a stock dividend in the ordinary company and would change surplus available for dividends into fixed capital. Probably, if profits accumulated, part of them would be transferred to capital and the remainder left in surplus as an "anchor to windward" to be used in case of emergencies. One point to be noticed is that the additions to capital are not limited to what is necessary to bring the stock to a value of $100.00 a share. Since there is no fixed par, the stock may be made to be worth any amount.

If it were decided to issue and sell some of the unsubscribed stock after the company had accumulated a surplus, the total amount received would be credited to capital if the previous accumulations had been added to capital account. Otherwise, the credit to capital would be for the same amount per share that the original stock was sold for and the rest of the payment would be credited to surplus. That is, if the original stock consisted of 3,000 shares at $60.00 and there were $30,000.00 in undivided profits on hand, the stock would be worth $70.00 a share. If 1,000 shares of the unsubscribed stock is now sold at $75.00 a share the entry will be:

Cash	75,000.00	
Capital stock		60,000.00
Surplus		15,000.00
For 1,000 shares sold at $75.00		

The capital stock account will now have a credit balance of $240,000.00 and surplus $45,000.00, a total of $285,000.00 for 4,000 shares, making the value per share $71.25. The 3,000 shares of old stock have received the benefit of only $3,750.00 of the $5,000.00 bonus paid by the new stockholders who themselves receive the benefit of the other $1,250.00 in their share of the surplus.

It might be claimed by the old stockholders that all the bonus belonged to them because they had developed the business that made it possible to exact the bonus or premium. This could be given to them by an entry made prior to putting the sale of the new stock on the books, but it would have no effect, unless a dividend of $5,000.00 were declared and paid or at least credited to "dividends payable" while there were still only 3,000 shares outstanding. If the $5,000.00 were merely credited to surplus, the following would be the entries:

Bonus from new stock	5,000.00	
Surplus		5,000.00

and when the new stock was sold:

Cash	75,000.00	
Capital stock		60,000.00
Surplus		10,000.00
Bonus		5,000.00

The surplus would be as before, $45,000.00, and the old stockholders would have received the benefit of only $3,750.00 out of the $5,000.00 bonus. It is important that the disposition of the bonus be specifically determined when the sale is made. If nothing is said about it the bonus will undoubtedly belong to the company itself and be shared by the new stockholders.

Thus far we have considered the case of a company having only one class of stock. The situation becomes more complicated when there is preferred as well as common stock. From the nature of preferred stock it naturally follows that it should have a fixed par value. The holders of such stock are entitled to an agreed amount per share in cash as income. When the stock is cumulative preferred the payment may be deferred, but it must be made eventually if the business succeeds. Without the consent of the holders the directors cannot substitute a stock dividend for one payable in cash; therefore if there be no fixed par to the preferred stock, no profits can be added to the face value. There might be one possible exception to this in case the preferred participated equally with the common in any dividends beyond that guaranteed to the preferred. If such a distribution of excess profits were made to the common in the form of an addition to the face value of the common stock, the directors might claim the right to make the same disposition of the excess allotted to the preferred. Even in this case the dividend could be made by issuing additional shares of preferred stock instead of adding to the face value of the preferred stock already issued.

When a company has cumulative preferred stock the right to the surplus no longer resides wholly in the common stock. Even if the preferred dividends are paid up in full to date, it may be unwise to give the common stock all the surplus, either in cash or as a credit to the face value, because the profits of the next succeeding period may not be sufficient to pay the preferred dividend for that time. This is on the theory that profits having once been credited to capital stock have become fixed capital which cannot be reduced by the vote of the directors alone.

If a company with 6% cumulative preferred stock of 5,000 shares at a fixed par of $100.00 and common stock with 5,000 shares of no fixed par issued at $60.00, had an accumulated surplus of $90,000.00, the situation would be

6% cumulative preferred stock 5,000 shares	500,000.00
Common stock, 5,000 shares	300,000.00
Surplus	90,000.00

If the dividend on the preferred for the last six months had not been paid it would be incorrect to say that the book value of the common stock was $390,000.00, because the preferred stock has a claim on the surplus for a 3 per cent dividend, or $15,000.00. If the directors now declared dividends of 3 per cent to the preferred and 5 per cent to the common, the situation would be

6% cumulative preferred stock	500,000.00
Common stock, 5,000 shares	300,000.00
Preferred dividend payable	15,000.00
Common dividend payable	15,000.00
Surplus	60,000.00

The directors would have the right to change the surplus into fixed capital by crediting all the $60,000.00 to the common capital stock account, bringing the common stock to $360,000.00 or $72.00 a share. If they did this, they would run the risk of not being able to meet the next semi-annual dividend on the preferred, not to mention the danger of having an actual deficit, in case of a bad fire or other unforeseen loss. It would be wiser to retain at least a large portion of the profits in surplus, which is to a certain extent under the control of the directors. However, this is financial rather than accounting advice.

This is not the same as the usual advice not to dissipate all the profits in dividends, because the profits are still retained whether they are added to the capital or are left in surplus. It is merely a question as to whether or not the profits shall be fixed as capital or left in surplus where they are available for future dividends. If the advice of the accountant is asked he should favor the carrying of a considerable portion of the profits in a substantial surplus.

RESERVE FOR FREIGHT TO BE PAID

Editor, Students' Department:

SIR: I would like to ask your assistance in regard to one of the accounts on the books of our company, the details of which are as follows:

More than a year ago, we shipped a large number of carloads to England, the freight on which was to be prepaid. It is customary to pay the ocean freight on prepaid shipments at the time the goods are loaded on the steamer. When we closed our books last January, there were still thirteen cars at the seaboard awaiting transshipment.

On account of the abnormal conditions, the ocean rates were very high, and the freight on these thirteen cars amounted to something like $19,075.00. In view of the amount being so large, I decided that it should be taken into consideration when determining our net profit for the year, and therefore created a "reserve for prepaid ocean freight" account, charging off the amount.

Subsequently, however, only four carloads were forwarded, the freight on which amounted to approximately $6,000.00, and owing to the fact that the government requisitioned practically the entire steamer space, the transportation company found it impossible to ship the remaining nine cars. We were therefore compelled to have these returned to Cleveland, and as a result our reserve account still shows a credit balance of $13,000.

Will you kindly advise me whether I handled this item correctly, and also as to the method of closing the reserve account. This was the first

time I opened a reserve account on our books, and I have been greatly puzzled as to just what should be done with this balance.

Would this be considered a profit on this year's business? What effect would it have on our excess profits tax?

Cleveland, Ohio. H. C. K.

Owing to the lack of complete information in regard to the shipment, it is necessary to assume three possible conditions:

1. The goods were consigned.
2. The goods were sold c.i.f. at a fixed price which has been charged to the customer and credited to sales.
3. The goods were sold, but no entries had been made for the sale, or, if any had been made, they were merely pro forma and included only the cost of the goods and freight to the port of shipment.

1. If the goods were consigned, no notice should have been taken of the ocean freight until it was paid, and then it should have been added to the cost of the goods in the consignment account. However, if the credit were made to a reserve account the offsetting debit would be to the cost of the consignment, and not to an expense account of freight. The correcting entry for the goods not shipped would be a debit to the reserve and a credit to consignment account. As no profit had so far been taken, there would be no loss to be taken up, except the railroad freight on the unsold goods.

2. In this case, the amount charged the customer and credited to sales would have included the cost of the goods, all freight and the profit on the deal. If the books were closed with these entries unchanged, it was necessary to charge the expense account of freight and credit the reserve, since the freight was included in the credit to sales and therefore to profits.

If the tax return were made on the basis of sales which included the carloads not finally shipped, the profits on which tax was paid were overstated to the extent of the profit that would have been made on the goods not finally shipped. It would probably be difficult to collect a rebate of taxes by claiming an error in the sales. The reversing entries in the current year will offset the overpayment, if the profits are large enough to stand the deduction.

In the abnormal uncertainty prevailing in regard to shipping conditions, it would have been an error to enter this sale as a completed transaction. Delivery is an essential feature of a sale and until delivery is reasonably certain no sale has been made, unless the goods were sold f.o.b. Cleveland, the customer then accepting delivery in Cleveland. The conditions show that this was not the case.

If the entries for the sale had been made, they should have been reversed before the books were closed, the goods being taken back into inventory at cost.

3. If no entries had been made, or only those which covered the cost, no profit would have been taken, and the correcting entries would involve no loss. The conditions would be the same as in the case of the consignment of the goods.

In any event the charge-off of the reserve this year would not be a profit. The only profit involved would be in case (2), and that profit was recorded last year. The reversing entries would represent a loss, or rather a correction of last year's surplus. As the credit of the freight to reserve last year reduced the apparent profit on the sale, the charge back to reserve this year will reduce the apparent loss on the return of the goods.

FREIGHT ON RETURNED CONSIGNMENTS

Editor, Students' Department:

SIR: Recently in closing a consignment account we found it necessary to have a quantity of goods returned, and these goods when received were placed in our finished stock.

Some of our accounting force hold the opinion that the freight on the return of these goods should be added to the cost of the article and used, when the goods were re-shipped, as part of the cost of manufacture.

There is some difference of opinion as to the handling of this item, and in order to settle the matter so that everyone will feel that his ideas were given due consideration, I would ask that you kindly give me your views of the disposition of the item. Yours very truly,

L. F. B.

In handling consignments-out the goods should be charged at cost to the consignee in an account in which its character is specifically designated as a consignment and not as a regular sale. To the cost at the factory may be added the freight to the consignee, on the ground that the goods are worth what it cost to get them into the hands of the consignee or they would not have been sent to him.

When the goods are returned to the factory by the consignee, the only argument in favor of their being charged back at cost plus freight out and back again would be that the goods have been increased in value by the two journeys. If those of the accounting force who hold that both freights should be added to the cost value are able to prove in what way the goods have been benefited, instead of being injured, by their travels, their contention may be accepted. Otherwise, they must be taken back into finished stock at their cost, at best, and both freights must be charged off as expense.

The same reasoning would apply to goods returned on a regular sale. Surely no one would think of charging them back to stock plus any freight.

What is called in logic the "reductio ad absurdum" is often helpful. Suppose the same goods were sent out and returned several times, and the freights were added each time, the value might become so great that they could never be sold at a profit. If this treatment is absurd as applied to several shipments, it is only a degree less so when applied to one.

FIRE LOSS

Editor, Students' Department:

SIR: Will you kindly give me your opinion on the following questions in regard to recording transactions of complete loss by fire.

It is desired by the firm to show the total amount, at a glance, of the salvage and insurance received.

Is it correct to enter through the voucher register, and charge total column to accounts receivable, all sales of parts of buildings, machinery, materials, etc., purchased and entered originally in the voucher register, the credit being to salvage account?

Should supplies purchased to be used in making salable the materials and machinery saved from fire and wages incurred for them, be debited to salvage account?

In closing the accounts, should the balance of buildings, plant and machinery and inventories accounts be debited to salvage account and the balance of salvage account be debited to surplus account?

In making out the profit and loss statement for the part of fiscal year when the plant was operated, should an approximate percentage of inventory on hand at time of fire, be taken to find the cost of goods consumed?

Very truly yours,

A Student.

The proper procedure in handling a total fire loss is to open a fire loss account. This account is charged with the net book value of the buildings and machinery. To put the net value on the books, the reserves for depreciation must be transferred by journal entry to the credit of the fixed asset accounts.

The materials inventories must be approximated by the gross profit method, unless an adequate cost system is in use, in which case the book inventories should be used. The gross profit method can be used only when there has been a virtually constant relation for several years between the cost of goods and the sales. The inventory is then approximated as follows:

Sales since last closing		xxx
Inventory at last closing	xxx	
Purchases since	xxx	
Gross profit at x%	*xxx*	*xxx*
Remainder is inventory lost		xxx

This inventory is credited to materials account to close the books and is debited to fire loss account.

Fire loss account, having been charged with all the property lost, must now be credited with salvage recovered and with money paid by the insurance companies. The balance of fire loss account is then transferred to the debit or credit of surplus. The balance may be a credit if the concern has charged off excessive depreciation, so as to bring the net carrying value below the insurance replacement value.

The total loss, the salvage, the settlement and the net result must be recorded in the fire loss account, and not in the salvage account. The fire was the important event and caused the loss—the salvage was only incidental.

If the salvage involved any transactions other than the mere sale of junk, etc., a salvage account should be opened. This account should be charged with the materials and labor required to render the salvaged articles salable and should be credited with the sales. The balance of the account should then be credited to fire loss account.

The use of the term voucher register is probably a slip of the pen. Sales are recorded in a sales register, not in a voucher register. However, the salvage sales should not be recorded in either register, unless the sales register has a sundries column from which the items can be posted to the credit of salvage account. These sales should be recorded by journal entries, except where they are made for spot cash, in which case they would appear in the cashbook only. The sales register should be used only for regular sales of the merchandise made by the factory.

INTEREST IN PART PAYMENTS

Editor, Students' Department:

SIR: What is the proper method of treating a mortgage note for $2,500.00 on which the mortgagee has the privilege of paying $20.00 monthly and interest at 6 per cent until paid? Would you give a receipt the first of every month for $20.00 as a part payment and charge or collect the interest at the end of each year? Would it be advisable to calculate the interest each month and specify in the receipt the amount applicable to principal and interest? R. L. R.

The proper treatment of payments of interest and principal on a mortgage note would depend entirely upon what the contract stated in regard to the distribution of monthly payments between principal and interest.

For instance, I have before me a note requiring the payment of $2,000 in the following manner: "The $2,000 is to draw interest at the rate of 6 per cent per annum and is to be paid as follows: the maker hereof is to pay to the said payee or order $40 on the first day of each and every month hereafter until the said sum of $2,000 and the interest thereon is fully paid; that is, the interest due from time to time on the unpaid balance is to be first deducted from said payment of $40 and the balance remaining is to be applied on account of the said principal sum of $2,000."

This recital clearly indicates what distribution is to be made of the monthly payments; and endorsement should be made on the note, showing the amount of the cash received for interest and the amount received on the principal. It would not be sufficient for the holder of the note to give a receipt for the payment because of the fact that the paper is a negotiable instrument and, if the part payments were not recorded on the note itself, the note might be sold by the holder and a holder in due course could enforce payment for the total note.

If it is the intention that the $20 monthly payment, in the case in question, is to apply entirely upon the principal, this should be endorsed on the note as an application against the principal. The question would then arise as to whether at the end of the year the debtor would pay interest on the principal outstanding at the beginning of the year or on the average principal outstanding during the year.

Unless specified differently in the contract, the interest to date on the then unpaid balance would have to be paid every month. The law is that interest takes precedence of principal, unless otherwise stipulated. That is, if the contract is silent as to when the interest shall be paid, any

payment made m... nrst be applied to the payment of the interest accrued at that ... and only the remainder will be applied in reduction of the ...ncipal. In the contract which we have mentioned this is plainly stated, probably to avoid misunderstanding, but it was not necessary to state it, as the procedure would have been the same in any case. On that contract the same payment of $40 is made every month, but the division between principal and interest varies thus:

1st mo.	payment	$40.00;	interest on	$2,000.00,	$10.00;	principal	$30.00
2nd mo.	"	40.00;	" "	1,970.00	9.85;	"	30.15
3rd mo.	"	40.00;	" "	1,939.85	9.70;	"	30.30

and so on.

In the case cited by our correspondent the expression "$20.00 monthly and interest" can be construed to mean only that the interest is an addition to the $20.00, not that it is included in it. The payments and the interest would constantly decrease, but the reduction of principal would not vary, thus:

1st mo.	payment	$32.50;	interest on	$2,500.00,	$12.50;	principal	$20.00
2nd mo.	"	32.40;	" "	2,480.00,	12.40;	"	20.00
3rd mo.	"	32.30;	" "	2,460.00,	12.30;	"	20.00

The law giving preference to interest is not at all well known to business men, and is seldom or never followed in ordinary commercial transactions, because the difference in the total interest is very small when the time is short and the amounts are not large. What is known as the commercial rule is usually followed. This requires the calculation of all the credit and all the debit items of interest separately and the payment of the difference. As an example take the following account:

Jan'y. 1, Merchandise	1,200.00	Feb'y. 10, Cash	800.00
March 2, "	1,600.00	March 17, "	1,100.00
May 1, "	900.00	April 16, "	700.00
		May 1, "	300.00

It is proposed to settle this on June 30th with interest at 6 per cent. per annum calculated at 360 days to the year.

The commercial plan would be:

Dr. $1,200	180 days	36.00	Cr. $800	140 days	18.67
1,600	120 "	32.00	1,100	105 "	19.25
900	60 "	9.00	700	75 "	8.75
			300	60 "	3.00
		77.00			49.67

which shows a debit net of $27.33, and a total due of $827.33.

The legal or "United States" plan would be:

Jan'y. 1, Debit	$1,200.00
Feb'y. 10, Payment 800.00 less interest 40 days on 1,200.00 8.00	792.00
	408.00
March 2, Debit	1,600.00

March 17,	Payment 1,100 less interest 20 days on [illegible]	1.36	2,008.00
	" " 15 " " 2,008.00, [illegible]	[illegible]	1,093.62
			914.38
April 16,	Payment 700.00 less interest 30 days on 914.38	4.57	695.43
			218.95
May 1,	Debit, net		600.00
			818.95
June 30,	Interest 15 days on 218.95 .55, and 60 days on 818.95, 8.19 =8.74		8.74
	Amount due		827.69

This shows a difference of only 36 cents, which is considered negligible on such amounts.

In the example quoted by us the method pursued would leave at the end of the 57th month an amount due of $26.99. In the 57 months there would have been paid in at $40.00 per month $2,280.00. If the small balance were paid at once the total amount paid would be $2,306.99. By the commercial method the interest on $2,000.00 for 57 months would be $570.00, a total debit of $2,570.00. Against this there would be a credit of 57 times $40.00 or $2,280.00 and interest on the first $40.00 of $11.40, diminishing each month in arithmetical progression to 20 cents the last month, or $330.60, a total credit of $2,610.60. As the credit is $40.60 more than the amount due, while by the United States rule there is still $26.99 due, it is seen that the commercial rule in this case favors the borrower to the extent of $67.59 which is by no means a negligible amount on a $2,000 note.

Accountants and bookkeepers should be more familiar than they are with the laws of interest. They can often save their clients or employers considerable sums if they know the effect of the different methods of calculation.

NOTES OR BILLS PAYABLE

Editor, Students' Department:

SIR: Does the accounting profession differentiate between bills payable and notes payable not only practically but also theoretically? One party contends there is no difference; the other says there is, with the explanation that notes payable, are the regular promissory notes and should always bear interest and do not recite that they are given to liquidate a specific kind of transaction, merely value received, whereas a bill payable is a trade acceptance, a bill of exchange, certified cheque or accepted sight draft. G. Q. D.

The accounting profession has not differentiated as yet between notes payable and bills payable.

In England and in continental Europe drafts or bills of exchange have been a more customary method of handling credit transactions than notes payable. In England, where most of our accounting terminology origi-

nated, bills of exchange were much more common than notes; therefore they used the term bills payable and bills receivable, and whenever a few notes were given they were entered in the account with the bills.

In this country the custom has been exactly the reverse. We have been accustomed to giving notes rather than accepting bills of exchange; but we have used the English terminology of bills payable until recent times. Realizing that the term bills payable was not as appropriate in this country as in England, a movement has been on foot to change the terminology from bills payable to notes payable and this movement has met with considerable success so that the term notes payable rather than bills payable now frequently appears in balance-sheets.

Strictly speaking a promissory note is a note payable; a trade acceptance is a bill payable; but I am inclined to think that as trade acceptances become more prevalent they will be recorded in a trade acceptance account rather than a bills payable account.

The statement that notes payable should always bear interest is not correct. Interest is an immaterial detail which may be found in a bill of exchange or trade acceptance as well as in a note and is not essential to either. In an accounting sense bills payable are always notes or acceptances payable at a future date, and the term does not include cheques or sight drafts.

The objection to the term bills payable is that in this country many business men not being accustomed to bills of exchange think the term refers to the bills rendered by their creditors which are payable every month.

ANONYMOUS LETTERS

This department continues to receive anonymous letters asking for information. Unless name and address both are given, no attention is paid to such requests as a usual thing. It is to be noted that a letter signed J. L. W. with the address of New York is an anonymous letter.

If the enquirer does not wish his name used, he can sign any initials or anything else, provided he give his real name and address below with the request that they be not used. This request will always be granted.

Alabama Society of Certified Public Accountants

At a meeting held in Birmingham, Alabama, September 27, 1919, it was decided to organize the Alabama Society of Certified Public Accountants. H. S. Miller was elected president, and J. A. Harden secretary and treasurer.

Henry J. Falk

Henry J. Falk, president of the Colorado State Society of Certified Public Accountants, died in Denver, September 27th. Mr. Falk was a member of the American Institute of Accountants and was keenly interested in the development of the profession throughout the country.

John K. Laird and H. C. Goettsche announce the formation of a partnership under the firm name of Laird, Goettsche & Co. with offices at 431-5 Chicago Stock Exchange building, 30 North La Salle street, Chicago.

Warrel S. Pangborn announces that he has taken into partnership his son, L. Moss Pangborn, and that the firm name hereafter will be Pangborn & Pangborn, with offices at 30 Broad street, New York.

Banks, Haig & Co. announce that Fred W. Lindars has become a member of the firm, which will continue in practice under the name of Banks, Haig & Lindars at 150 Nassau street, New York.

Edward I. Petze & Co. announce the opening of offices at 118 Asylum street, Hartford, Connecticut, and 80 Broad street, New York.

Eli Moorhouse announces that he is now a member of the firm of John G. McIntosh & Co., 309-310 White building, Seattle, Washington.

Griswold & Conant announce the removal of their offices from 85 Devonshire street to Old South building, Boston, Massachusetts.

John J. Lang announces the opening of an office in La Salle building, Broadway and Olive street, St. Louis, Missouri.

E. F. Leathem & Co. announce the removal of their Birmingham, Alabama, office to the Brown-Marx building.

John J. C. Shelly announces the opening of an office at 505 Confederation Life building, Winnipeg, Manitoba.

John Y. Richardson announces the resumption of practice in the Concord Building, Portland, Oregon.

Arnold, Nold & Co. announce the opening of offices in the Andrus building, Minneapolis, Minnesota.

Puder & Puder announce the opening of a branch office in the Land Title building, Philadelphia.

Nau, Rusk & Swearingen announce the opening of a branch office at 280 Broadway, New York.

Joseph Gill announces the opening of an office at 2 Rector street, New York.

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BOARD OF EXAMINERS

Examination in Auditing

NOVEMBER 13, 1919, 9 A. M. TO 1 P. M.

Answer any ten questions and no more:

1. Outline in the case of a balance-sheet audit a programme of instructions for verification of cash and bank balances.
2. Outline a system of internal check for a wholesale grocery concern doing a business of $3,000,000 a year, with about 2,000 customers. The system should co-ordinate with an annual audit by professional accountants.
3. A corporation owns nearly all of a block of land. The remaining portion is purchased subject to an existing lease. The corporation sets aside out of surplus an amount believed to be sufficient to extend its plant over the entire block at the expiration of the lease. What ledger title should be given to the amount set aside, and how should the amount be set up on the balance-sheet?
4. In making "detailed" audits some auditors verify all postings and footings of general and subsidiary ledgers, even though controlling accounts are kept. State reasons for and against such procedure.
5. Describe three methods of calculating depreciation and suggests cases in which each might be feasible or desirable.
6. The federal reserve board stipulates that paper to be eligible for re-discount must be supported by a statement of the borrower showing a satisfactory excess of quick assets over current liabilities.
   (a) For such purpose what items are
      1. Quick assets?
      2. Current liabilities?

(b) A man owns 100% of the stock of each of two corporations. The business of one corporation is leased to the other, so that the lessee corporation has title to all quick assets. What kind of a statement should be submitted?

7. In auditing the accounts of a corporation for the first time you find that during prior years the federal income-tax returns (which had not been audited by the government) were, in your opinion, inaccurate and that a substantial additional amount of taxes is due to the government. Your client claims that the returns were correct, having been prepared under the advice of counsel. You believe that the client is acting in good faith. What, if anything, would you recommend? What bearing, if any, would the facts have upon a balance-sheet to be certified by you?

8. Describe a proper arrangement of audit working papers:
   (a) During the audit;
   (b) When ready for filing.

9. In the audit of the accounts of an instalment house with 20,000 open accounts, where weekly payments are due and made in currency, how would you verify the outstanding balances?

10. You ascertain that a client owes a substantial amount for assessments against local benefits. No liability therefor appears on the books. How would you proceed to determine the amount due? How would you reflect such amount on the balance-sheet?

11. On March 15, 1919, you received instructions to audit the accounts of a large corporation whose fiscal year ended December 31, 1918. The corporation has subscribed for Liberty bonds through various banks and at December 31, 1918, certain subscriptions had been paid for in full and delivery of the bonds accepted, while in other cases part payments only had been made. Bonds have also been delivered to employees who have subscribed and paid for them in full. Describe how you would proceed to verify the asset shown on the balance-sheet at December 31, 1918, representing bonds on hand and part payments made on subscriptions, so that you can give an unqualified certificate to your clients as of December 31, 1918.

13. In making an audit of a trust estate you find the following amounts treated as income:
    (a) Profit on retirement of $10,000 bonds paid off at par plus 5%.
    (b) Dividend of $500 due prior to decedent's death.
    (c) Interest on $10,000 note for half-year to June 30th (testator having died on March 31st).
    (d) Dividend of $1,000 for half-year to June 30th received July 1st.

    What criticism, if any, would you advance in regard to these credits?

Examination in Commercial Law

NOVEMBER 13, 1919, 2 P. M. TO 6 P. M.

Give reasons for all answers.

NEGOTIABLE INSTRUMENTS

Answer three of the following four questions:

1. (a) A holds B's note for $5,000, which is drawn to the order of A. How can A transfer the note to C and at the same time avoid liability on it?
   (b) Mention the various kinds of endorsements and give an example of each.
2. A received from B a negotiable promissory note for $2,500 payable on demand to the order of B and endorsed by B to the order of A. Six months later the maker of the note became insolvent. Has B any defense to an action by A against him as endorser? Explain fully.
3. A delivered his cheque to B for $150 in payment for a horse and later gave notice to the bank on which it was drawn not to pay it. What are B's rights (a) against the bank and (b) against A?
4. As an accommodation to B, A on June 1, 1919, endorsed B's note for $1,000 payable to C's order on July 1, 1919. On July 2, 1919, C endorsed and delivered the note to D. What rights, if any, has D against A?

CONTRACTS

Answer two of the following three questions:

5. A, having contracted on January 1, 1919, to sell B 100 bbls. of flour to be delivered on July 1, 1919, notified B on

February 1, 1919, that he would not perform the contract. What were B's rights upon the receipt of this notice?

6. A, in New York, wrote B in Buffalo, offering certain goods for sale at a certain price. B wrote a letter to A accepting the offer and posted it in Buffalo. Before A received the letter he received a telegram from B stating that he withdrew the acceptance. Was a valid contract made? Explain the principles involved.
7. What are the rights of a vendor of personal property when the vendee wrongfully refuses to accept delivery thereof?

CORPORATIONS

Answer both the following questions:

8. What is meant by issuing of stock, and in return for what may stock lawfully be issued?
9. From what funds may dividends be paid and who determines whether and when they shall be paid?

BANKRUPTCY

Answer both the following questions:

10. Define and distinguish insolvency at common law and under the federal bankruptcy act.
11. A commences a suit against B and obtains an attachment of B's property. Thirty days thereafter A enters judgment. The next day a petition in bankruptcy is filed against B, and twenty days thereafter he is adjudged a bankrupt. What is the effect, if any, on A's attachment and judgment?

PARTNERSHIP

12. A and B were partners in business. A died and C was appointed executor of his will. What are the rights, if any, of C, as executor, with respect to the partnership assets and business?

INCOME TAX

Answer two of the following three questions:

13. To what extent are salaries of officers and bonuses given to employees deductible in computing the net income of corporations under the federal income-tax law?

14. A New York corporation received during the year dividends amounting to $2,000 on stock of a Massachusetts corporation owned by it and $1,000 on stock of a British corporation owned by it. Do these dividends constitute taxable income of the New York corporation under the federal income-tax law?

15. A purchased a plot of vacant land in 1903 for $5,000. In 1919 he sold it still vacant for $7,500. How should this transaction be treated by A in preparing his income-tax return?

Examination in Accounting Theory and Practice

PART I

NOVEMBER 14, 1919, 9 A. M. TO 1 P. M.

Answer questions 1 *and* 3, *and any three other questions:*

1. Spark Plug and Auto Supply, Inc., is the manufacturer of a patented spark plug and is also dealer in automobile supplies. From the following trial balance (as of October 31, 1919), and information prepare balance-sheet and profit and loss statements showing cost of manufacture of spark plugs and gross and net profit on sales.

Advertising	$26,450	
Accounts receivable	180,105	
" payable		$42,500
Bills receivable	35,000	
" payable trade creditors		22,700
" " First National bank		150,000
Bonds 5% 1st mortgage		250,000
Building factory	225,000	
Bad debts written off	7,850	
Capital stock:		
Common fully paid		
Authorized $250,000		
Issued		100,000
6% Preferred.		
Authorized and issued		300,000
Dividend preferred stock	18,000	
Delivery expenses	7,140	
Delivery, equipment and trucks	9,250	
Directors' fees	2,500	
Discount on sales	12,200	
Freight: raw materials	12,050	
" automobile supplies	2,345	

Finished goods	34,320	
First National Bank current account	51,850	
General expenses	14,770	
Goods in process	13,250	
Heat, light and power	22,200	
Interest on bonds	9,375	
Insurance and taxes: factory	17,400	
Labor: productive	233,846	
" non-productive	99,444	
Liberty bonds	195,000	
Loose tools	15,270	
Machinery and plant	165,090	
Office furniture and fixtures	1,200	
Payroll		4,278
Patent rights	30,000	
Purchases: raw materials	450,960	
" automobile supplies	141,690	
Repairs	14,050	
Rent: warehouse	3,875	
Reserve for depreciation: buildings		20,500
" " " machinery		16,836
" " bad debts		8,000
Real estate: factory site	150,000	
Shop supplies and expenses	15,560	
Surplus		173,011
Sales: spark plugs		1,063,020
" automobile supplies		137,595
Salaries: office and general	14,500	
" salesmen	34,600	
Travelling expenses	22,300	
	2,288,440	2,288,440

Inventories, Nov. 1, 1918:	
Raw materials	14,500
Automobile supplies	22,450
Inventories, Oct. 31, 1919:	
Raw materials	27,300
Automobile supplies	19,200
Finished goods	50,400
Loose tools	10,500
Goods in process	17,205

Reserve for bad debts to be adjusted to 5% of open accounts.

Depreciation for the 12 months ended October 31, to be allowed as follows:

Factory buildings	2%
Machinery	5%
Delivery equipment	10%
Furniture and fixtures	$200

Disregard fractional parts of a dollar.
Patent rights expire Oct. 31, 1925.
Advertising, $950.00 applies to next season.
Taxes on factory buildings accrued, $1,400.00.
First mortgage 5% gold bonds are a first charge on all the assets of the company. Interest payable quarterly on the first of February, May, August and November.

2. The certificate of incorporation of the company referred to in the preceding question provides for the redemption of preferred stock "out of surplus profits," $30,000 to be redeemed November 1, 1919, and $30,000 yearly thereafter. The stock redeemed in 1919 is to be purchased at 105 and accrued dividends, in 1920 at 110, and so on, the 1928 redemption being at 150.

Assuming that purchases of stock are made in accordance with the above requirements and that the directors take the necessary steps for the cancellation of the issue, explain how the various transactions should be recorded in the books of the company and illustrate your answer by journal entries.

How would you show the accounts in the balance-sheet at any time during the redemption period?

3. In Mr. Jones' private ledger he keeps accounts with each investment he makes, one of which is an investment of 1,000 shares (par value $100) of the A. B. Company, which he acquired in July, 1914, for $85,000. After this date and up to December 31, 1918, he makes further purchases and sales of this stock. A certified public accountant called in to prepare Mr. Jones' income-tax return for 1918 finds that these and other transactions have been written up in the following manner, no effort to show the profit on the sale of 1,000 shares on June 1, 1918, having been attempted:

INVESTMENT A. B. COMPANY ACCOUNT

		Dr.	*Cr.*
July 1/14.	1,000 shares purchased..............	$85,000	
Dec. 31/14.	Entry to carry this stock at par......	15,000	
May 31/15.	Purchased 1,500 shares at par........	150,000	
Nov. 30/15.	Sold 300 shares at 125.............		37,500
Dec. 31/15.	Profit and loss—profit on sale of 300 shares	7,500	

July 1/16.	Stock dividend of 50% on 2,200 shares declared from profits accumulated prior to Mar. 1, 1913..............	110,000	
Feb. 28/17.	Sold 700 shares @ 110...............		77,000
Dec. 31/17.	Profit and loss, profit made on sale of 700 shares	7,000	
June 1/18.	Sold 1,000 shares @ 125..............		125,000

Rewrite this entire account to show how it should have been kept in order to show the actual profit on each sale, and also calculate the actual profit on the last sale of 1,000 shares. What is the book value of the total shares on hand December 31, 1918?

4. Discuss the treatment of expenditures for (I) ordinary repairs and (II) replacements in their relation to capital expenditures, profit and loss and reserve for depreciation.
5. A corporation carries on its books an account with patents it has acquired from time to time by outright purchase during a period of ten years. They are still carried at original cost and it is decided to determine their present value, based upon the expiration of the life of the patents. Describe how you would proceed accurately to secure this result.
6. A wholesale and retail company, which also manufactures most of the goods sold by it, determines through its cost system in the factory the cost of manufacture and proposes to bill its wholesale department for all goods manufactured at cost plus 10%. What effect will such procedure have on statements issued by this company?
7. State briefly the reasons advanced against including interest on owned capital in manufacturing costs.

Examination in Accounting Theory and Practice

PART II

NOVEMBER 14, 1919, 2 P. M. TO 6 P. M.

Answer questions 1 and 2, and any five other questions.

1. A. and B. trading in partnership decide to admit C. as from January 1, 1919.

They agree with C. as follows:

C. is unable to contribute any tangible assets as his capital investment, but agrees to allow his share of the profits to

be credited to his capital account until he shall have one-fifth interest. C. is to share profits and losses to the extent of one-fifth.

C. is to receive a salary of $3,000 per annum, payable monthly in addition to his share of profits.

Balance-sheet of A. and B. at December 31, 1918, is as follows:

Assets		*Liabilities*		
Cash	$ 1,500	Accounts payable		$8,000
Accounts receivable	10,000	Capital accounts		
Merchandise	7,500	A.	$10,000	
Furniture & fixtures	1,500	B.	5,000	
Goodwill	2,500			15,000
	$23,000			$23,000

During the six months ended June 30, 1919, the business has sustained unusual losses and it is decided to dissolve the partnership.

The balance-sheet at that date is as follows:

Assets		*Liabilities*		
Cash	$ 500	Accounts payable		$12,500
Accounts receivable	12,500			
Merchandise	5,000	Capital accounts		
Furniture & fixtures	1,500	A.	$10,000	
Goodwill	2,500	B.	5,000	
Deficit				15,000
Being loss on trading for six months	5,500			
	$27,500			$27,500

Accounts receivable were sold for $9,000, the buyer assuming all responsibility for collection and loss, if any.

Merchandise realized $6,500 and furniture and fixtures $500.

You are asked to make an examination of the accounts from January 1st and to prepare statements showing the realization of assets, the adjustment of the partnership accounts and the distribution of the funds.

In your examination you find that C. has not drawn his salary for four months, and that B. has advanced to the partnership $2,500 by way of a temporary loan. These liabilities you find are included in the sum of $12,500 shown as accounts payable.

C. is ascertained to be worthless.

2. The Pan-American Chemical Company, a New York corporation, owns a plant in Chile where nitrate of soda is manufactured and shipped to the United States. The accounts in Chile are kept in the local currency (pesos) and the following is a summary of the transactions during 1918:

1/1/18	New York	remitted by	telegraphic transfer	$30,000				
				which realized		120,000	pesos	
4/1/18	"	"	"	$30,000	"	150,000	"	
7/1/18	"	"	"	30,000	"	180,000	"	
10/1/18	"	"	"	30,000	"	150,000	"	

There were paid in wages for plant construction 120,000 pesos
There was paid for operating.................300,000 pesos

At December 31, 1918, the unpaid payroll for operating labor amounted to 60,000 pesos and one-sixth of the nitrate produced during the year remained in inventory.

You may assume that the production, construction and shipments were spread evenly over the whole twelve months, and that the only element entering into costs of production and construction in Chile was labor.

The average quoted exchange rates in Chile and New York were as follows:

1/1/18 to 6/30/18	3 pesos = $1.00
7/1/18 to 12/31/18	5 " = 1.00
At the close of business 12/31/18 the rate suddenly dropped to	6 " = 1.00

You are required to show the accounts affected in both pesos and American dollars and to prepare a trial balance as at 12/31/18 for the purpose of incorporating the Chilean accounts on the New York books.

3. If in consolidating the accounts of a holding company and its subsidiary companies you find that in the case of one of the subsidiary companies the holding company owns only 60% of its voting stock, state briefly how you would treat this subsidiary company's accounts in the consolidated balance-sheet and why your proposed treatment reflects the true financial position of the combined companies more clearly than other methods with which you may be familiar.

4. From the following comparative balance-sheets of the ABC Company at December 31, 1917, and December 31, 1918, prepare a short statement showing the funds realized during the year and the disposition made thereof:

Assets:	Dec. 31, 1917	Dec. 31, 1918
Capital assets	$600,000.00	$900,000.00
(Replacement values as shown by appraisal were used at December 31, 1918)		
Inventories	1,000,000.00	1,160,000.00
Accounts receivable	850,000.00	800,000.00
Cash	200,000.00	550,000.00
Deferred charges	20,000.00	10,000.00
	$2,670,000.00	$3,420,000.00

Liabilities:	Dec. 31, 1917	Dec. 31, 1918
Capital stock	$1,000,000.00	$1,000,000.00
Bonds (issued at par)		500,000.00
Capital surplus, representing excess of sound replacement value of appraisal at December 31, 1918, over the book value of capital assets at that date		150,000.00
Bank loans	750,000.00	400,000.00
Accounts payable	500,000.00	600,000.00
Reserve for depreciation and replacements	100,000.00	200,000.00
(The reserve at December 31, 1918, represents the difference between the replacement and sound value of the appraisal at December 31, 1918)		
Surplus	320,000.00	570,000.00
	$2,670,000.00	$3,420,000.00

NOTE.—The profits for the year were $450,000 and dividends were paid during the year amounting to $200,000. The sum of $100,000 was charged to operation for depreciation during the year and $50,000 was charged against the reserve for replacements.

5. Is there any distinction between the figure shown as "invested capital" in a corporation's excess profits tax return and the capital value upon which capital stock tax is calculated?

6. In setting up the balance-sheet of a corporation which has an issue of 100,000 shares of stock of no par value, but a stated value of $5 a share, and an excess of assets over liabilities of $1,500,000, how would you show the capital on the balance-sheet?
7. State how you would show on the balance-sheet, if at all, consigned goods held for account of a principal?
8. In which section of the balance-sheet and in what order would you show the following items: wages, accounts payable, taxes, notes payable, interest accrued payable?
9. Would you advise showing profits for prospectus purposes before or after deducting war profits and income taxes? State your reasons briefly.

Renewal Costs and Business Profits in Relation to Rising Prices

By John Bauer

Industrial management faces a grave danger during a period of rising prices in that the revenues or gross earnings show the full effect immediately, while many of the additional costs are more hidden and are not fully disclosed in the accounts as they are incurred, but finally cannot be avoided. This results for a time in an overstatement of profits and unjustified payment of dividends or withdrawal of earnings but in the end means waste of capital and loss of income. The prosperity of rising prices is usually unreal. People fool themselves with the greater number of dollars that they receive, while they do not count the full costs that ultimately must be paid, and they actually become poorer in the meanwhile.

I wish to discuss one particular cost which is being generally overlooked, but which, in the end, will have to be faced by all business and society at large—the allowance for depreciation or renewals of industrial plant. At best, this matter has been handled haphazardly in the past and has caused many business failures. But, at present, there is extraordinary danger, even to concerns which heretofore have made seemingly adequate provision for depreciation or renewals. Provisions for renewals of plant are commonly made in one of two ways, although, of course, other methods may be used: (1) charging to operating costs a systematic allowance for depreciation or, (2) charging to operation the original cost of property retired as renewals are made. The object of either method is to maintain out of earnings the investment in property, so that when any unit of plant or equipment has been withdrawn from service, its cost shall have been made good out of earnings and shall then be taken out of property account.

We shall not be concerned here with the technique of accounting, as to whether the one method or the other be used, nor with the relative advantages or disadvantages in actual practice. The point, however, should be clear that all recognized methods result

in charging to operating account the original cost of property retired. This policy, in view of the higher present level of prices, is wrong. If the present level continues, or is maintained to such extent that renewals will cost more than property retired, the recognized allowance for renewals is inadequate and should be raised in proportion to the higher prices.

The issue is whether as a principle of management and accounting, the charges to operation for renewals should result merely in keeping up the so-called investment in dollars and cents, and no more, or in actually maintaining the plant in its physical condition and capacity as a producing agent. The first is, of course, the generally accepted view, which is doubtless based on the assumption that prices are ordinarily constant and that the general level does not change. If prices were constant, both the investment in dollars and cents, as well as the physical plant, would be maintained out of earnings, by including in operating account only the original cost of the property retired. But if prices have risen, then, while this practice will maintain the so-called investment in terms of dollars, it will not keep up the physical condition and production of the plant. It will result in additions to capital account without enlarging the plant, or increasing its producing capacity. The question therefore arises, is the purpose of management merely to maintain investment in terms of dollars, and to show current costs and profits accordingly, or is it really to keep up the plant and equipment and to maintain the physical productivity of the property?

If the question and facts are once clearly understood, there can scarcely be a difference in opinion. The purpose of management certainly must be to maintain the physical plant, and to keep up production without drawing upon capital funds. If this be true, then, when the price level has risen, the charge to operation for renewals should not be the original cost of property retired, but the cost of new property which, in function and capacity, is required to replace the old. The point may be presented more clearly by concrete illustration.

Assume that a street railway company purchased 1,000 passenger cars at $5,000 each, that the cars have an average life of 20 years and that the company allows for depreciation $250.00 a year per car. On the average, therefore, by the time a car is

retired, the full original cost of $5,000 has been charged to operation and has been reserved from earnings. The original cost of $5,000 is then written off and the cost of all new cars is charged to capital account. So long, then, as prices remain unchanged, this policy is satisfactory; operating costs and capital account are properly stated. Suppose, however, that prices have doubled—then the renewal of every car that had cost $5,000 requires $10,000. But, if only $5,000 have been charged to operating costs and reserved from earnings, then simply to renew its property, without any improvements or additions, the company must pay $10,000 instead of the original cost of $5,000. Having kept from earnings only $5,000, it is compelled to make the additional expenditure out of capital funds derived from the sale of securities. When all the old cars have been renewed, the company will not have more or better cars, but will have doubled its original capital account, and will have twice the original bonds or other securities outstanding. While it will have maintained its investment in terms of dollars, it will have standing against property of the same physical character and capacity securities of $10,000,000 instead of $5,000,000. Merely to replace the cars, it had to borrow $5,000,000—an amount equal to the cost of the original equipment.

It may be argued in the above illustration that because of the change in prices, net earnings in the meanwhile would have doubled and would justify the additional obligation. Again, this is true in terms of dollars, but not in reality. Half of the earnings would be required as interest on the new bonds; the rest would be equal to the old earnings in dollars, but would constitute only half of the former purchasing power. The company would earn the same amount of money for its owners, but would turn over to them only half the former income in terms of everyday purchases.

This is the inevitable result of simply maintaining investment in terms of dollars and charging to operation only the original cost of property retired. This policy will not maintain the physical capital in the face of rising prices.

Operation should be charged with the expected cost of renewals, regardless of the original cost of property withdrawn from service.

In our illustration, $10,000 should have been charged to operation and reserved from earnings for each car, instead of the original cost of $5,000. This would have shown greater costs during the shift from one price level to another; for the time being it would have kept down profits to the proper measure, and in the end would have conserved the actual capital and income of the company. On the new price level, the 1,000 cars would be worth double the original investment and would earn twice as many dollars for the owners. But, in terms of purchasing power, taking into account the doubling of prices, they would be only equivalent to the original investment, both in the matter of capital and income.

In practice, unfortunately, the facts are not so simple as in our illustration. New cars are usually purchased without regard to retirement of old cars; likewise, old cars are withdrawn from service without immediate consideration to the purchase of new cars. Types of cars are constantly changing; cars purchased now are larger and, in many ways, fundamentally different from old cars acquired twenty years ago. Consequently, even though much higher prices are paid now than formerly for new cars, the effect upon operating costs is not immediate and is easily overlooked.

Nevertheless, the result is inevitable—following the established provision for renewals, the property is not physically maintained out of earnings, and the renewals are actually financed out of security issues. Merely measured in dollars, the investment and income are maintained, but, counting the decrease in the value of the dollar, capital and income are allowed to decline. In the meanwhile excessive profits are shown at the expense of real capital.

While our illustration is taken from the field of street railways, the point applies to factories of all sorts and to all industries where renewal of plant and equipment constitutes a large proportion of operating costs, and especially where the life of plant and equipment is of considerable duration. To the extent that the present high prices are permanent, or that prices will not return to the former level, operating costs are everywhere understated by an amount equal to the difference in the amortization of original cost of property retired and the cost of actual renewal. Understatement of operating costs means a corresponding under-

statement of profits and, except in case of very conservative management, excessive payment of dividends or withdrawal of earnings. The dividend payments then become private income and result in unjustified feeling of personal prosperity, and in excessive private expenditures for luxuries or services which are not justified by actual industrial conditions.

Let us return to street railways and public utilities in general. While in our illustration I assumed that rates had advanced in proportion to other prices, public utilities rates have not generally been increased in proportion to the advance in operating costs. With comparatively few exceptions, public utility companies never did make adequate allowance for depreciation or renewals, even before the sharp increases in prices in recent years. But, where they should have been making additional provisions, they have been actually cutting down still further, so as to keep costs within revenues. This, however, has been mere make-believe: in the end, these are costs that cannot be dodged; they will have to be paid in one way or another.

Street railway companies in particular have been in a difficult situation, where they have been held to a five-cent fare. They have been skimping even ordinary repairs, and in notable instances have understated even these actual costs in the income account, by drawing on reserves accumulated in previous years. While the situation as reported by the companies is serious, the ultimate condition when extensive renewals will have to be made will be very much worse. If the funds are then to be raised through rates, the increases will have to be so great as to be practically prohibitive. If they are to be raised through the issue of further securities, the companies would first have to be made solvent, and then the additional interest would have to be paid out of an increase in rates. Again, there would then be the practical difficulty of actually making the rates high enough to cover operating costs and the necessary return on investment. The truth is, not only that the properties are not being kept up out of earnings, but the dodging of present actual costs will add greatly to the difficulty of ultimately placing the business on a solvent basis.

The situation as to public utilities, however, especially as to the street railways, cannot be set right simply by making adequate allowances to operating expenses and then raising rates so as to

cover the costs and bring the necessary return on investment. In many instances, before increases in rates can justifiably be granted by public authority, many questions of franchises must first be settled, or existing contracts between municipalities and companies must be extensively revised, or other questions of amount of investment and right to return must first be judicially determined. In notable cases, although franchise and contract revisions will ultimately have to be made, reasonable adjustment will seriously affect existing financial interests and will therefore not become possible until all hope of getting higher rates, without concessions to the public, shall have been abandoned by the companies, or until the most safely intrenched interests shall otherwise clearly go down in financial ruin. Unfortunately, too, the public authorities are not in all cases simply honest, but are acting with unworthy political motives. In some instances, the struggle will be long drawn out, and in the meanwhile the properties will continue their deterioration. In the end, their deferred costs of maintenance are certain to fall on the public and will then bring home the realization that we have been living on capital and not on actually earned income. Present rate controversies are therefore particularly unfortunate, in that they keep the public from realizing now the costs that are actually being incurred in the service.

In regard to renewals of public utility properties, it may be argued that each generation of consumers should simply bear the costs of service at the time, and that in line with this view, the proper charge to operation is the actual cost of property consumed in service, not the renewal cost. If the latter is greater because of higher prices, the addition, it may be urged, is properly paid out of capital funds and thereafter its cost should be charged off to operation while the property is being consumed in service. In regulated industry, it may be conceded, wide discretion may properly be exercised in the distribution of costs to the public. A regulatory commission well may follow the policy that is thus defended. But, the ultimate financial facts cannot be dodged, that following this policy will relieve present consumers of costs that are due entirely to mere change in prices and will place upon future consumers not only the then greater amortization of property but also a greater interest burden on account of renewals financed out of capital funds. If prices have doubled, there will

then be a doubling of interest costs, as well as doubling of renewal charges. The better and sounder policy would be for present consumers to bear the double renewal costs so that the physical property would be maintained out of earnings; then while future consumers would continue bearing the greater renewal costs, they would not be burdened also with the higher interest charges.

If present rate-payers do not provide the additional renewal funds, they will be relieved from costs which really belong to the present, and will add accordingly to the costs imposed on future consumers. This is the point of this entire discussion. Costs cannot be avoided; but their showing can be deferred. The public should provide now for complete renewals of property, together with all other costs, whether in strictly private business or public utilities. If it does not make adequate provisions, it will overstate its present prosperity, will indulge in extravagant personal expenditures and in the end will find itself poorer because of the present showing of unearned profits.

The point may be urged that present high prices may be only temporary, and we may soon return to the pre-war level. This is true; but, also, we may go to much higher prices and stay there and be compelled to make renewals at the still greater costs. We do not know what the future will bring; but we may reasonably expect a long continuation of prices substantially higher than before the war. The sensible policy is to accept present prices as permanent and to count all costs accordingly. If, however, prices recede, there will then be time again to make reductions. But if prices go still higher, we should be prepared at every step to count the greater costs immediately. This practice in itself would prevent prices from going higher than is warranted by the fundamental economic conditions. The present showing of personal income would be substantially less; consequently there would be a considerably smaller demand for current consumption of goods and services, and there would be less motive for all sorts of profiteering enterprise.

Federal Taxation of Corporations*

By F. R. Carnegie Steele

The Principal Taxes

The principal federal taxes to which corporations are subject are the income tax, excess profits tax and capital stock tax. All these are imposed under the revenue act of 1918, which, though enacted so recently as February, 1919, became effective retroactively as of January 1, 1918. In order to apprehend the drastic character and the magnitude of such taxes, it should be borne in mind that for the year 1918 a sum exceeding three billions of dollars (more than one-half of the total revenue anticipated under the act) was assessed solely upon corporations, and that a very substantial part of this vast sum was assessed upon Massachusetts industries.

Both the income tax and the excess profits tax are levied upon taxable income (after excluding dividends and certain exemptions), but the excess profits tax is imposed at graduated rates on the difference between the taxable income and an exemption comprising 8% on invested capital plus $3,000.00, this exemption being termed the "excess profits credit." The capital stock tax is a special excise tax with respect to carrying on or doing business, and is levied at the rate of $1.00 per thousand on the fair average value of a company's capital stock in excess of an exemption of $5,000.00.

Corporation executives have become familiar with the general operation and scope of such tax legislation, because similar taxes were in force under the former revenue act of 1917, so, on the present occasion, it seems unnecessary and inappropriate to submit a detailed digest of the present statute, but rather to discuss the practical aspects of such of its more important provisions as are of especial significance to manufacturing organizations.

Reduced Tax Rates for 1919

It is gratifying to note the following striking changes in corporation tax rates and procedure, effective for the calendar year 1919 and thereafter.

*An address delivered at the annual meeting of the Associated Industries of Massachusetts, at Boston, 1919.

The income tax rate for corporations is reduced from 12% to 10%. It should be noted, however, that since an individual's maximum normal income tax is reduced from 12% to 8%, a discrepancy occurs between the normal tax of a corporation at 10%, and the normal tax of an individual at 8%, from which the dividends he receives are exempted. Therefore, a dividend when received by one corporation from another corporation is exempted from a 10% tax, but when received by an individual the exemption is only 8%.

The war profits tax, levied on 1918 income at 80% on all income in excess of the war profits credit, has been abolished, except as to war contracts. This effects a material reduction, not only in taxes, but also in the labor of compiling tax returns, inasmuch as the elaborate schedules regarding earnings, assets and liabilities and invested capital, for the three pre-war years, no longer are required.

With regard to the graduated excess profits tax, the rate under the first bracket is reduced from 30% to 20% on taxable income over the excess profits credit and less than 20% of the invested capital; and the rate under the second bracket is reduced from 65% to 40% on taxable income over 20% of the invested capital. The maximum limit for this tax is also reduced from 30% to 20% on taxable income over $3,000.00 and less than $20,000.00, while for income exceeding $20,000.00 the rate is reduced from 80% to 40%.

Determination of Taxable Income

General Comments

According to the computations of the treasury department, the net income of corporations in the United States for the year 1918 amounted to the enormous sum of ten billions of dollars, from which, of course, the statutory abatements and credits were deductible in arriving at taxable income.

The credits against net income include dividends received from corporations similarly taxable and interest received on tax-exempt securities. The value of property acquired by gift, devise or descent is exempt income, but sums received by corporations as the proceeds of life insurance policies upon the lives of officers or stockholders are taxable to the extent that they are in excess of the amount of premiums paid and not deducted in previous

income-tax returns. Corporations are thus unjustly penalized, inasmuch as the proceeds of life insurance policies paid to the insured's estate or to individual beneficiaries are tax exempt. In computing taxable income, items deductible from gross income include all the ordinary and necessary business expenses paid or incurred during the taxable year and all interest paid or accrued within the taxable year, excepting interest on indebtedness incidental to investments in tax-exempt securities other than Liberty bonds. Payments for federal income tax and excess profits tax and war excess profits tax may not be deducted, but the excess profits tax payable for the taxable year is deductible in arriving at a corporation's net income subject to income tax. Losses deductible are no longer limited to the extent of any offsetting profits from similar transactions, but corporations (unlike individuals) are not allowed to deduct as an expense contributions or gifts for religious, charitable, scientific or educational purposes. This unfair discrimination against corporations ought to be abolished. Another hardship occurs in the case of income resulting from the sale of capital assets, which is taxable for the year in which received. Upon the sale of such assets, which usually represent accumulations through the gradual development of a business during a series of years, the proceeds are equivalent to accretions to capital and should be treated as such instead of being regarded as income; or, at least, the apparent profit on sale should be pro-rated over the number of years during which the property was owned by the taxpayer.

There are other factors of special significance in the computation of taxable income, and with regard to these the following comments are submitted.

Claim for Loss through Inventory Shrinkages

In the determination of taxable income no subject is of greater importance to manufacturers than the valuation of inventories, but, unfortunately, the official regulations concerning the admissibility of claims for losses arising from their over-valuation under war conditions have aroused widespread dissatisfaction and are believed to be contrary to the apparent intent of the statute.

Section 234, sub-section 14a of the federal revenue act of 1918, specifically provided that at the time of filing a return for the taxable year 1918 a taxpayer might file a claim in abatement, based

on the fact that he had sustained a substantial loss (whether or not actually realized by sale or other disposition), resulting from any material reduction (not due to temporary fluctuations), of the value of the inventory for such taxable year; or, if no such claim were filed, but it were shown to the satisfaction of the commissioner that during the taxable year 1919 the taxpayer had sustained a substantial loss of this character, such loss should be deducted from the net income for the taxable year 1918, and the taxes for such year should be redetermined accordingly.

It would seem that the true construction or intent of this section would be that if there were a material reduction of the value of the articles included in the inventory, the taxpayer would be entitled to have the closing inventory for the 1918 year adjusted to the replacement value of the goods included in such inventory, upon their sale or other disposition, or, in the case of goods still on hand at the time of the filing of the claim, to the replacement value of the goods at the time of filing such claim (or even at a later date), so as to prevent the injustice of computing and taxing the 1918 net income on the basis of a closing inventory taken at what proved to be an inflated value. Of course, if it had been possible to know what would be the values for 1919 applying to the goods included in the 1918 inventory, it would have been made permissible to use such values. That being impossible, provision apparently was made for the adjustment of the inventory to the later reduced values. It was believed that corporations would thus be relieved from paying heavy war taxes upon "paper profits," because any over-valuation of inventories at the close of the year 1918 might be adjusted so that only the actual profits realized on sale of such inventories would become taxable in the year 1919, and at the lower tax rates then in force.

Nevertheless, the official regulations regarding this subject, which appear to be opposed to the spirit of the act, render it exceedingly difficult, if not impossible, for a manufacturer to obtain the relief from the taxation of paper profits for the year 1918 that the law was designed to afford. It is held that the losses mentioned must be net losses, allowable only (a) where goods included in inventory at the end of the year 1918 have been sold at a loss during the succeeding taxable year (and this loss can only be claimed when the inventory price exceeds the sale price, less

selling expense, etc., attributable to such goods) or (b) where they remain unsold throughout the year 1919 and at its close have a then market value, not resulting from a temporary fluctuation, materially below the value at which they were inventoried at the end of 1918. This in effect denies relief to taxpayers who proceed to use their goods in manufacture and sale, while giving relief to those who retain them on hand.

On May 28, 1919, representatives of the Associated Industries of Massachusetts, in conference with the commissioner of internal revenue, urged him to amend the official regulations concerning claims for inventory losses, in order that such regulations might fairly interpret the obvious intent of the statute, but no action thereon has yet been taken. The official regulations state that deductions for inventory losses may be claimed either by a claim in abatement or by a claim for refund and must not be entered on the regular return.

It was required that claims in abatement be filed with the collector on form 47 when the return for the taxable year 1918 was made, but, as the law states that at the time of filing a return for the taxable year 1918 a taxpayer may file a claim for abatement, the commissioner holds that the law does not mandatorily provide that the claim shall be filed at the time of rendering the return. Therefore such an abatement claim will be considered by the internal revenue bureau if filed before or within ten days after the mailing of the collector's notice and demand on form 17. In the case of a claim in abatement filed with a return, payment of the amount of the tax covered thereby shall not be required until the claim is decided, provided the taxpayer files therewith a bond on form 1124 with surety or securities of double the amount of the tax covered by the claim with the condition for the payment of any part of such tax found to be due with interest at the rate of 12 per cent. per annum.

Claims for refund are to filed on form 46 not later than 30 days after the close of the taxable year 1919. Each claim must contain a concise statement of the amount of the loss sustained and the basis upon which it has been computed, together with all pertinent facts necessary to enable the commissioner to determine the allowability of the claim. The amount allowed by the com-

missioner in respect to any such claim shall be deducted from the net income for the taxable year 1918 and the taxes shall be recomputed accordingly. Any amount paid in excess of the tax due shall be credited or refunded to the taxpayer. In computing income for the taxable year 1919 the opening inventory must be properly adjusted by the taxpayer in respect of any claim allowed for the year 1918.

A claim for loss in inventory not realized by sale will be decided only after the close of the taxable year 1919 upon the basis of any permanent reduction in the level of market values, which may occur during such year, from the inventory values taken at the close of the taxable year 1918. Not later than thirty days after the close of the taxable year 1919 a taxpayer who has filed either a claim in abatement or a claim for refund, or both, shall submit to the commissioner a descriptive statement showing the quantity and kind of all goods included in the 1918 inventory which have been (a) sold at a loss in the taxable year 1919, (b) sold at a profit during the taxable year 1919 or (c) not sold or otherwise disposed of during the taxable year 1919, together with such other information in respect of such goods as the commissioner may require. A claim filed with the 1918 return for a loss not then realized by sale will be passed upon in the light of any sales thereafter made during the taxable year 1919. A claim filed with the return is authorized for the purpose of allowing the taxpayer to utilize, where justified, a preliminary allowance for inventory losses, and not to provide a deduction essentially different from that taken by way of a claim filed at the end of the taxable year 1919.

Claim for Amortization of Equipment for War Work

Under the revenue act of 1918 it is clearly provided that a "reasonable deduction" for amortization of the cost of equipment for war work (incurred after April 6, 1917) may be made by a taxpayer in computing taxable income, and that at any time within three years after the termination of the war the commissioner may, and, at the request of the taxpayer, shall, reexamine the return; and if he then finds as a result of an appraisal or from other evidence that the deduction originally allowed was incorrect, the taxes shall be redetermined accordingly. Notwithstanding the

clear and unequivocal terms of this statutory provision, the regulations and decisions issued by the treasury department concerning it appear unduly to restrict its practical application.

In general terms these regulations, which are quite complex, provide that the amortization allowance shall be the difference between the equipment's original cost, less any depreciation or deductions taken prior to January 1, 1918, and a residual value, defined, under specified conditions, as follows:

(1) Salvage value at date discarded, (in the case of property useful only during the war period and permanently discarded at the date of the return); or

(2) Salvage value as of the date when the property will be permanently discarded, (in the case of property still in use which will not be required for future use and is certain to be permanently discarded before the last payment of the tax covered by the return); or

(3) Estimated value to the taxpayer in terms of its actual use or employment in his going business, in no case less than sale or salvage value or more than 25% of cost, (in the case of all other property). In this case the final determination of the amortization allowance is to be ascertained upon the basis of stable post-war conditions under regulations to be promulgated when those conditions become apparent.

The amortization is to be pro-rated in proportion to net income (computed for this purpose without benefit of the amortization allowance) between January 1, 1918, and the date when the residual value adopted, as outlined above, is determined.

It is understood, therefore, that a taxpayer will not be required to charge off any amortization in a year in which there are no profits to absorb it, but will charge it only as and when there are profits available.

The Claim for Depreciation and Obsolescence

In computing taxable income a reasonable allowance for the exhaustion, wear and tear and obsolescence of property used in the trade or business may be deducted from gross income. The proper allowance for such depreciation of any property used in the trade or business is that amount which should be set aside for

the taxable year in accordance with a consistent plan by which the aggregate of such amounts for the useful life of the property in the business will suffice, with the salvage value, at the end of such useful life to provide in place of the property its cost or its value as of March 1, 1913, if acquired by the taxpayer before that date.

It should be noted that the amount on which depreciation may be computed is not limited to the book value of depreciable property. The past practice of conservative industrial managers has been to charge off as expense additions and improvements which were in fact capital expenditure. This, however, does not preclude a claim for depreciation upon the actual value of plant as of March 1, 1913 (the date when the first income-tax law became effective under the eighteenth amendment to the constitution of the United States), plus the cost of subsequent additions to plant regardless of the value at which the plant is carried on the taxpayer's books.

When through some change in business conditions the usefulness of capital assets is suddenly terminated, so that the taxpayer discontinues the business or discards such assets permanently from use in the business, he may claim as a loss (obsolescence), for the year in which he takes such action, the difference between the cost or the fair market value as of March 1, 1913, of any asset so discarded (less any depreciation allowance) and its salvage value remaining. This exception to the rule requiring a sale or other disposition of property in order to establish a loss requires proof of some unforeseen cause by reason of which the property must be prematurely discarded, as, for example, where machinery or other property must be replaced by a new invention, or where an increase in the cost of or other change in the manufacture of any product makes it necessary to abandon such manufacture, to which special machinery is exclusively devoted, or where new legislation directly or indirectly makes the continued profitable use of the property impossible. This exception does not extend to a case where the useful life of property terminates solely as a result of those gradual processes for which depreciation allowances are authorized. It does not apply to inventories or to other than capital assets. The exception applies to buildings

only when they are permanently abandoned or permanently devoted to a radically different use, and to machinery only when its use as such is permanently abandoned.

With regard to depreciation of intangible assets, an important concession has just been authorized by the treasury department, under which the former regulation to the effect that "there can be no such allowance in respect to goodwill, trade names, trademarks, trade brands, secret formulae or processes" has now been abrogated. This innovation gives taxpayers the right to claim depreciation upon the intangible assets named, as well as on patents, copyrights, licenses, etc., the term of which is definitely limited, subject to the approval of the commissioner of internal revenue.

A depreciation allowance, in order to constitute an allowable deduction from gross income, must be charged off. The particular manner in which it is charged off is not material, except that the amount measuring a reasonable allowance for depreciation must be either deducted directly from the book value of the assets or preferably credited to a depreciation reserve account, which must be reflected in the annual balance-sheet. The allowances should be computed and charged off with express reference to specific items, units or groups of property, each item or unit being considered separately or specifically included in a group with others to which the same factors apply.

Deduction for Compensation of Officers

The deductions allowed in computing taxable income under the revenue law include "a reasonable allowance for salaries or other compensation for personal services actually rendered." The determination of what is a reasonable allowance rests with the internal revenue bureau, and it is true that charges for compensation of officers and managers reported by corporations in their tax returns have commonly been reduced and their taxable income increased by the disallowance of compensation deemed to be excessive or deemed to be a dividend based upon, or bearing a close relationship to, the stock holdings of the recipients. The test of deductibility in the case of compensation payments is whether or not they are in fact payments purely for services and are such as would ordinarily be paid for like services by like enterprises in like circumstances. If contingent compensation is paid pursuant to a free bargain between the enterprise and the

individual, made before the services are rendered, for securing on fair and advantageous terms the services of the individual, it is regarded as an allowable deduction. Excessive compensation disallowed as a dividend, corresponding with stock holdings, is, of course, exempt from normal tax in the hands of recipients, but it is held that if such payments constitute an appropriation of assets of the corporation, the amount of the excess, while disallowed as a deduction by the corporation, is to be treated as compensation subject to both normal tax and surtax of the recipient.

The Excess Profits Tax

The present excess profits tax, unlike the tax of the same name imposed under the former law of 1917, is applicable to corporations only, and is levied in a graduated scale upon their net income, after deducting an exemption, termed the "excess profits credit," comprising $3,000.00 plus an amount equivalent to 8% upon invested capital. The graduated rates for this tax are as follows: 20% on income over the excess profits credit and under 20% of invested capital, plus 40% on all income over 20% of invested capital. There is, however, a maximum limit for this tax, designed to relieve corporations with small income and small invested capital, which provides that the total tax may not exceed 20% of the income over an exemption of $3,000.00 and less than $20,000.00, plus 40% of all income exceeding $20,000.00.

Invested Capital

In general terms, invested capital is the capital actually paid in to a corporation, in cash or in property (subject to certain limitations), by its stockholders, plus surplus and undivided profits. It is not based upon the present net worth of a company's assets, as shown by an appraisal or in any other manner, and does not include borrowed capital. Moreover, the fair market value of the assets as of March 1, 1913, has no bearing on invested capital under the present law. The definitions of invested capital given in the law and official regulations are unnecessarily obscure because of a confusion of assets with liabilities in the language used in seeking to define the net worth of a company, substantially at cost, which is, of course, equivalent to the stockholders' equity, exclusive of appreciation. Broadly speaking, if a company's capital has been subscribed in cash or in tangible property at its

cash value, and if it holds no inadmissible assets (securities other than U. S. obligations, the income from which is not included in computing taxable income), its capital, plus any paid-in or earned surplus and undivided profits at the commencement of the taxable year, is its invested capital. But, if a company's surplus and undivided profits have been understated through charging off property previously paid for, or if it actually acquired on the issue of its stock tangible property of a cash value in excess of the par value of the stock issued therefor, such items may be reinstated or added, and the original value of the invested capital may be correspondingly increased. On the other hand, if it issued stock for goodwill, patents or other intangible property, a deduction from its invested capital must be made for the amount by which the book value of such assets exceeds 25% of the company's issued capital stock. If it holds any inadmissible assets there must also be deducted from the invested capital, as originally computed, an amount equal to the percentage which the amount of inadmissible assets is of the amount of both admissible and inadmissible assets held during the taxable year.

The status of Liberty bonds in the computation of a corporation's invested capital for the purpose of the excess profits tax has been quite generally misunderstood by the public, for it was commonly believed during the recent Liberty loan drives that corporations subscribing for Liberty bonds would thereby increase their invested capital and thus secure an increased exemption from the excess profits tax. Nevertheless, no Liberty bond of any issue is of any greater value than cash, merchandise, plan or accounts receivable in the computation of invested capital. If a corporation converts part of its cash into a Liberty bond it is not adding thereby one cent to its invested capital, for it is merely converting one form of admissible asset into another form of admissible asset of equal but of no greater value.

Relief Provisions

The present provisions with reference to the definition of invested capital are a little more favorable than those of the act of 1917 as interpreted by the treasury department. Under that act it was found that the effort to apply any set formula to the determination of invested capital resulted in grave discrimination in the amount of taxes payable in respect to different busi-

nesses apparently conducted under substantially similar conditions. To provide relief in cases of such discrimination, the present law specifies cases in which discrimination is recognized. Among these are cases in which as compared with representative corporations the corporation in question would be placed in a position of substantial inequality because of abnormal conditions affecting its capital or income or because of inability to determine its invested capital.

Affiliated Corporations

Corporations which are affiliated within the meaning of the law are now required to make both a consolidated income-tax return and a consolidated excess profits tax return. For such corporations under the act of October 3, 1917, only a consolidated excess profits tax return was permitted.

So far as its immediate effect is concerned, consolidation increases the tax in some cases and reduces it in others, but its general and permanent effect is to prevent tax evasion. Among affiliated corporations it frequently happened that the accepted inter-company accounting assigned too much income or invested capital to company A and not enough to a subsidiary company B. This might make the total tax for the parent corporation too much or too little, and although such procedure may not have developed from any consideration of taxation, there remained an incentive to discontinue any arrangement which served to increase taxes and to retain one by which taxes were diminished. Thus the former laws, which contained no requirement for consolidated tax returns, placed an almost irresistible premium on a segregation or a separate incorporation of activities which would normally be carried as branches of one concern. Nevertheless, it is believed that the consolidated return for affiliated companies has been adopted, not primarily because it operates to prevent evasion of taxes or because of its effect upon governmental revenue, but because the principle of taxing as a business unit what in reality is a business unit is sound and equitable both to the taxpayer and to the government

Capital Stock Tax

The capital stock tax is described in the statute as a "special excise tax with respect to carrying on or doing business." Unlike the income tax and the excess profits tax, which are federal

levies upon corporate income, the capital stock tax is substantially a federal levy upon corporate property, and thus becomes a very convenient and attractive agency for the exaction of much heavier contributions toward the national revenue than have hitherto been levied upon the property of corporations.

The capital stock tax is at the rate of $1.00 for each full $1,000.00 of the fair average value of the capital stock of a corporation in excess of the prescribed deduction of $5,000.00. The tax is not upon the par value of the capital stock, but upon its fair average value for the preceding fiscal year ending June 30th. As regards domestic corporations it is on an entirely different basis from the excess profits tax, which is concerned with invested capital and not with the present fair value of the capital. Moreover, the fair value of the entire capital stock of a corporation is not necessarily the product of the market value of each share multiplied by the number of shares. The fair average value of the capital stock of a corporation and the tax payable thereon are determined in accordance with the instructions in the form of return which provides in exhibit A for the book value of the capital stock, in exhibit B for the market value and in exhibit C for the value based on capitalizing the earnings. In reporting earnings for this purpose, it should be noted that federal taxes accrued may be brought into account, so as to show the actual net earnings. The statutory basis of the tax is not necessarily the book value or the market value or even the earning value, although it is often more directly dependent upon the last. It should usually be capable of appraisal by officers of the corporation having special knowledge of the affairs of the corporation and general knowledge of the business in which it is engaged. Provision is accordingly made in exhibit C of the return for the tentative determination of the fair value of the capital stock by capitalizing the net earnings of the corporation on a percentage basis fixed by the officers as fairly representing the conditions obtaining in the trade and in the locality. The capitalization of earnings at 12% as the equivalent of par value is mentioned on the return blank; but such fair value must not be set at a sum less than the reconstructed book value shown by exhibit A or the market value shown by exhibit B, unless the corporation is materially affected by extraordinary conditions which justify a lower figure. In any such case a full

explanation must accompany the return. The commissioner will estimate the fair value of the capital stock in cases regarded as involving any understatement or undervaluation.

Closing Comments

Taxability of Stock Dividends

In order to dispel the doubts that have been raised by the apparent conflict between court decisions and the revenue laws, stock dividends should be declared non-taxable. It will be recalled that the constitutionality of the federal laws with regard to their taxation has frequently been questioned, and that the appeal case in *Macomber vs. Eisner,* recently argued by Charles E. Hughes, has been reargued by him before the supreme court of the United States. It is my opinion that the supreme court will support Mr. Hughes' contention and will hold that stock dividends are not taxable as income of the distributees.

High Taxes on Corporate Incomes are Unsound in Principle

More than one-half of the total revenue raised under the federal revenue act of 1918 is derived from taxation of the income of corporations. In my judgment a corporation is not an appropriate subject for taxation on net income, because such taxation is an attempt to secure greater justice in taxation, to reach effectively the wealth of a community and to secure from it a contribution commensurate with its ability, and it is a personal tax felt by the individual which may be applied progressively, thus meeting the actual demands of the case for equality of burden. When applied to a corporation, however, it loses these characteristics, since a corporation is a collection of individuals who cannot be said to have placed therein their entire available wealth. To tax the net income of the corporation is a wholly different thing from taxing the individuals who compose it, for the incidence of the tax is no longer personal, and the whole potency and effect of a true net income tax is undermined. The taxes of a corporation are really borne by its members, and at a uniform rate in proportion to their respective stockholdings, without regard to the fact that the income of one stockholder, from all sources, may be such as to entitle him to exemption from individual income tax, while another stockholder may be a millionaire.

The appropriate function of a net income tax is to reach the fair contribution of an individual measured by his personal ability,

and the logical and harmonious plan, and the one which avoids to the greatest extent complications and difficulties (that are in certain respects inevitable under our complex form of government and highly developed use of the corporate form of doing business), is to apply the income tax principle to the individual, and to place only such a tax upon a corporation as will fairly cover its property value, including all elements which go to make up such value. While it would be impracticable to bring every individual under taxation through the operation of a personal income tax alone, I believe that the imposition of consumption taxes upon articles in general use would adequately supplement graduated taxes assessed on personal incomes, and that high taxes on corporate incomes, being unsound in principle, should not be imposed.

Introduction to Actuarial Science*

BY H. A. FINNEY

(Concluded)

BOND PRICES

The price at which a bond will sell is affected by the nominal interest rate, the mortgaged security, the financial standing of the issuing company and the probability of being able to sell the bond if occasion requires.

Bonds rarely sell on the market at par—usually a premium is added or a discount deducted. Quotations are made "on a basis" or "at a price." When bonds are sold at a price other than par the effective interest rate differs from the nominal or coupon rate. Thus if a bond is issued at a discount, the principal borrowed is really less than par. Moreover, the borrower pays not only the interest coupons but also the discount for the use of the borrowed money. Hence the effective rate on the loan is greater than the nominal rate. If the bond sells at a premium, the principal borrowed is more than par; and since the borrower does not have to pay back the premium at maturity, the premium is really a deduction from the interest. Hence the effective rate is less than the nominal rate.

Quotations "on a basis" state the effective rate to be earned. The price, above or below par, may then be found in a bond table, or computed. Thus a 5 year 6% bond of $100.00 bought on a 5% basis would cost $104.38 as shown in the following table—or a 5 year 5% bond of $100.00 bought on a 6% basis would cost $95.73.

5 years

Interest payable semi-annually

Per cent. per annum	3%	3½%	4%	4½%	5%	6%	7%
4.75	92.29	94.49	96.70	98.90	101.10	105.51	109.91
4.80	92.08	94.28	96.48	98.68	100.88	105.28	109.58
4.875	91.77	93.96	96.16	98.35	100.55	104.94	109.33
4.90	91.66	93.86	96.05	98.25	100.44	104.83	109.21

5 years
Interest payable semi-annually

Per cent. per annum	3%	3½%	4%	4½%	5%	6%	7%
5.	91.25	93.44	95.62	97.81	100.00	104.38	108.75
5.10	90.83	93.02	95.20	97.38	99.56	103.93	108.29
5.125	90.73	92.91	95.09	97.27	99.45	103.82	108.18
5.20	90.42	92.60	94.78	96.95	99.13	103.48	107.84
5.25	90.22	92.39	94.57	96.74	98.91	103.26	107.61
5.30	90.01	92.18	94.35	96.53	98.70	103.04	107.38
5.375	89.71	91.87	94.04	96.21	98.37	102.71	107.04
5.40	89.61	91.77	93.94	96.10	98.27	102.60	106.93
5.50	89.20	91.36	93.52	95.68	97.84	102.16	106.48
5.625	88.70	90.85	93.00	95.16	97.31	101.61	105.92
5.75	88.20	90.34	92.49	94.63	96.78	101.07	105.37
5.875	87.70	89.84	91.98	94.12	96.26	100.53	104.81
6.	87.20	89.34	91.47	93.60	95.73	100.00	104.27

Computing the Premium

When the effective rate is less than the nominal rate, the premium may be computed by a method based on the following reasoning:

Assume that the par of the bond is $1,000.00, the time 5 years, the nominal rate 6% a year payable semi-annually, and that the bond is to be purchased on a 5% basis. The conditions are such that the purchaser is satisfied with 5% a year; therefore, if the bond bore coupons of 2½% or $25.00 payable each six months the bond would presumably sell at par. In other words, the purchaser would pay par, $1,000.00, for the right to receive par at maturity and interest of $25.00 semi-annually. But since the coupons are $30.00 each, he must also pay for the right to receive this extra $5.00 each six months. This semi-annual payment of $5.00 is an annuity, and the purchaser will pay its present value discounted at the effective interest rate of 2½% per period thus:

.781198=present value of 1 @ 2½% in 10 periods

.218802÷.025=8.75208 present value of annuity of 1

8.75208×5=43.76040 present value of annuity of 5, the premium.

The method may be stated as follows:

Compute the interest for 1 period at the nominal rate on par	\$30.00
" " " " 1 " " " effective " " "	25.00
Find the difference, which is one rent of an annuity	5.00

Find the present value of this annuity at the effective rate.

Another method of computing the cost of a bond at a premium is based on the following reasoning:

The purchaser will pay the present value of the benefits to be received, which are ordinarily:

Par at maturity;
The interest coupons.

The present value of these benefits will be computed at the effective rate. Applied to the preceding illustration, the computation by this method would be:

Present value of par:	
.781198, present value of 1 due 10 periods hence at 2½%	
.781198×1000=	781.198
Present value of coupons:	
.218802 (compound discount)÷.025=8.75208 present value of annuity of 1	
30.00 (coupons) × 8.75208=	262.562
Total (as computed above)	1,043.760

The interest and amortization of premium on this bond may be scheduled as follows:

Amortization—Bond at a Premium

Cost			1,043.76
1st interest date:	Coupon	30.00	
	Interest: 2½% of 1043.76	26.09	3.91
	Carrying value		1,039.85
2nd " "	Coupon	30.00	
	Interest: 2½% of 1039.85	26.00	4.00
	Carrying value		1,035.85
3rd " "	Coupon	30.00	
	Interest: 2½% of 1035.85	25.90	4.10
	Carrying value		1,031.75

4th	"	"	Coupon	30.00	
			Interest: 2½% of 1031.75	25.79	4.21
			Carrying value		1,027.54
5th	"	"	Coupon	30.00	
			Interest: 2½% of 1027.54	25.69	4.31
			Carrying value		1,023.23
6th	"	"	Coupon	30.00	
			Interest: 2½% of 1023.23	25.58	4.42
			Carrying value		1,018.81
7th	"	"	Coupon	30.00	
			Interest: 2½% of 1018.81	25.47	4.53
			Carrying value		1,014.28
8th	"	"	Coupon	30.00	
			Interest: 2½% of 1014.28	25.36	4.64
			Carrying value		1,009.64
9th	"	"	Coupon	30.00	
			Interest: 2½% of 1009.64	25.24	4.76
			Carrying value		1,004.88
10th	"	"	Coupon	30.00	
			Interest: 2½% of 1004.88	25.12	4.88
			Par—payable at maturity		1,000.00

Or the schedule may be shown thus:

AMORTIZATION—BOND AT A PREMIUM

End of period	Coupon	Effective interest	Premium written off	Carrying value
				1,043.76
1	30.00	26.09	3.91	1,039.85
2	30.00	26.00	4.00	1,035.85
3	30.00	25.90	4.10	1,031.75
4	30.00	25.79	4.21	1,027.54
5	30.00	25.69	4.31	1,023.23
6	30.00	25.58	4.42	1,018.81

7	30.00	25.47	4.53	1,014.28
8	30.00	25.36	4.64	1,009.64
9	30.00	25.24	4.76	1,004.88
10	30.00	25.12	4.88	1,000.00
	300.00	256.24	43.76	

The second method of computing the price, described above, is the better one to use when bonds are repayable at a premium.

Illustration: what price, to net 5%, should be paid for a 5½% twenty-year bond of $1,000.00, repayable with a bonus of 5%?

Present value of 1050 due at maturity:

.3724306, present value of 1 at 2½% in 40 periods.

.3724306×1050=	391.052

Present value of coupons:

.6275694÷.025=25.102776 present value of annuity of 1

25.102776×27.50=	690.326
Total	1,081.378

Computing the Discount

The two methods described for computing the price of a bond sold at a premium may also be used when the bond is sold at a discount.

To illustrate: at what price should a $1,000.00 5 year 5% bond be sold to net the investor 6%? Interest is payable semi-annually.

By the first method the difference between the interest on par at the effective rate and at the nominal rate is computed—the discount is the present value of an annuity for the number of interest periods, each rent of which is the difference in the interest at the two rates. This annuity is discounted at the effective interest rate.

Effective rate: 3% on 1,000=	30.00
Nominal rate: 2½% on 1,000=	25.00
Difference:	5.00

.744094 is the present value of 1 at 3% due 10 periods hence:
.255906÷.03=8.5302 present value of annuity of 1.
8.5302×5=42.6510, the discount.
1,000.00—42.65=957.35, the price.

By the second method the present values of par and coupons are computed at the effective rate:

Present value of par:	
.744094×1000=	744.094
Present value of coupons:	
.255906÷.03=8.5302	
8.5302×25=	213.255
Total:	957.349

The reduction of this discount may be scheduled thus:

Schedule of Amortization—Bond at Discount

First period:		
Cost:		957.35
Interest: 3% of 957.35	28.72	
Coupon	25.00	3.72
Carrying value		961.07
Second period:		
Interest: 3% of 961.07	28.83	
Coupon	25.00	3.83
Carrying value		964.90
Third period:		
Interest: 3% of 964.90	28.95	
Coupon	25.00	3.95
Carrying value		968.85
Fourth period:		
Interest: 3% of 968.85	29.07	
Coupon	25.00	4.07
Carrying value		972.92
Fifth period:		
Interest: 3% of 972.92	29.19	
Coupon	25.00	4.19
Carrying value		977.11

Sixth period:		
Interest: 3% of 977.11	29.31	
Coupon	25.00	4.31
Carrying value		981.42
Seventh period:		
Interest: 3% of 981.42	29.44	
Coupon	25.00	4.44
Carrying value		985.86
Eighth period:		
Interest: 3% of 985.86	29.58	
Coupon	25.00	4.58
Carrying value		990.44
Ninth period:		
Interest: 3% of 990.44	29.71	
Coupon	25.00	4.71
Carrying value		995.15
Tenth period:		
Interest: 3% of 995.15	29.85	
Coupon	25.00	4.85
Carrying value		1000.00

Or thus:

SCHEDULE OF AMORTIZATION

Period	Effective interest	Coupon	Discount	Carrying value
				957.35
1	28.72	25.00	3.72	961.07
2	28.83	25.00	3.83	964.90
3	28.95	25.00	3.95	968.85
4	29.07	25.00	4.07	972.92
5	29.19	25.00	4.19	977.11
6	29.31	25.00	4.31	981.42
7	29.44	25.00	4.44	985.86
8	29.58	25.00	4.58	990.44
9	29.71	25.00	4.71	995.15
10	29.85	25.00	4.85	1000.00
Total	292.65	250.00	42.65	

Purchases at Intermediate Dates

When bonds are sold between interest dates, the customary method of computing the price is as follows:

Determine the price which would have been paid at the last preceding interest date. Determine the price which would have been paid at the next succeeding interest date. Find the difference in these prices. This difference is the premium or discount which would be amortized for the entire period in which the purchase was made.

Determine the fraction of the period expired between the last preceding interest date and the date of purchase.

Multiply the difference in prices (premium or discount for whole period) by the fraction of the period expired. The product is the premium or discount for the fractional period.

Deduct such premium for the fractional period from the price at the last preceding interest date, or add the discount for the fractional period.

To the result thus obtained add the accrued interest on par at the nominal rate.

Illustration—bond at premium: what price should be paid for a $100.00 bond due in 6 years and 2 months, bearing 6% and bought on a 5% basis plus accrued interest?

Value 6½ years to maturity (per bond table)	105.49
" 6 " " " " " "	105.13
Difference—premium amortized in 6 months	.36
Multiply by fraction of period expired—4 months	⅔
Premium amortized in 4 months	.24
Price 6½ years to maturity	105.49
Deduct premium for 4 months	.24
Value 6 years, 2 months before maturity (flat)	105.25
Interest for 4 months on $100.00 at 6%	2.00
Price including interest	107.25

At the next interest date the bond will be written down to $105.13, its value at that date as shown by the bond table.

Illustration—bond at a discount: what price should be paid for a $100.00 bond due in 8 years and 1 month, bearing 4% and bought on a 5½% basis plus accrued interest?

Value 8 years to maturity (per bond table)	90.40
" 8½ " " " " " "	89.92
Difference—discount amortized in 6 months	.48
Multiply by fraction of period expired—5 months	5/6
Discount amortized in 5 months	.40
Add value 8½ years before maturity	89.92
Add accrued interest at 4% on $100 for 5 months	1.67
Price including interest	91.99

Optional Redemption

When a bond or other obligation gives the debtor the option of paying the debt before maturity, this right must be taken into consideration in determining the price to be paid if the purchase is to be made at a premium or a discount.

If the debtor has the right to redeem at par before maturity, the purchase price should be computed on the assumption that the right will be exercised if the bond is purchased at a premium. The reason for the assumption can be shown by a comparison of prices in a bond table.

A 6% bond payable in 20 years bought on a 5% basis should cost 112.55.

A 6% bond payable in 15 years bought on a 5% basis should cost 110.47.

Now if the bond is payable in twenty years with an option to redeem in fifteen years the purchaser may be buying a bond with only fifteen years to run; and he should pay for it on the supposition that it will be paid at the optional date.

On the other hand if the bond is to be purchased at a discount, he should assume that it will not be paid until maturity. A bond table shows that

A 5% bond payable in 15 years bought on a 6% basis should cost 90.20; a 5% bond payable in 20 years bought on a 6% basis should cost 88.44.

If the purchaser pays 90.20 for the bond and it is not paid for twenty years, he will not earn 6% on his investment. In fact, he will earn a little less than 5⅞%.

If the debtor must pay a premium in order to redeem the bond before maturity, the purchaser should assume that the option will not be exercised in case the bond is to be sold at a discount. It was shown in the preceding paragraph that a 5% bond sold on a 6% basis would sell for $90.20 if redeemable at par at the end of 15 years. If redeemable at a premium, it would sell for a still higher price. But a purchaser would be unwise to pay this higher price when there was a possibility that the bond would run the full twenty years. He should buy on the assumption that the option will not be exercised. If it is exercised his rate of earning will be more than 6%.

But if the bond is to be purchased at a premium, and if the debtor must pay a premium to redeem the bond before maturity, the purchaser cannot assume that the option will be exercised, nor can he assume that it will not be exercised. The advantage to the debtor arising from the payment at par on an optional maturity date may vanish if he has to pay a premium if he redeems before maturity. Whether or not it will be advantageous will depend on the amount of the premium. Therefore, the purchaser should compute the price to be paid on the given basis if the bond runs to maturity, and the price to be paid if the option to redeem at a premium is exercised; and he should then pay the lower price.

To illustrate: on a 5% basis what should be paid for a $1,000.00 6% bond, due in 20 years, with a privilege of redemption in 15 years at 110?

A bond table shows the value on a 5% basis of a 20 year 6% bond to be $1,125.50.

The value if the option is exercised could be computed thus:

Value of 1,100 in 15 years:

Present value of 1 at 2½% due 30 periods hence	.476742685
Multiply by	1100
	524.4169535

Value of coupons:

Present value of 1, as above	.476742685
Compound discount	.523257315

.523257315÷.02½=20.9302926, present value of annuity of 1

20.9302926×30=627.908778

Value of par and premium	524.4169
Value of coupons	627.9087
Total	1152.3256

The price, on the assumption that the bond runs to maturity, is $1,125.50. On the assumption that it is paid at the optional date, the price is $1,152.33. The purchaser should assume that the option will not be exercised and pay $1,125.50.

If the premium to be paid at the optional redemption date is not too large, it may still be desirable to exercise the option.

To illustrate: what price should be paid for the bond in the preceding illustration if the optional redemption price is 101 instead of 110?

Price if option is not exercised: $1,125.50, as above.

Price if option is exercised:

Present value of 1010 in 15 years:

Present value of 1 at 2½% due 30 periods hence	.476742685
Multiply by	1010
	481.5101
Present value of coupons—as above	627.9087
Total	1,109.4188

This price, $1,109.42, should be paid because it is less than $1,125.50.

Computing the Rate on Bonds Sold at Premium or Discount

When a bond is purchased on the basis of an effective rate other than the nominal rate, it is a simple matter to compute the price to be paid; but when the bond is purchased at a price not listed in the bond tables, it is by no means an easy matter to compute the price. In fact, there is no mathematical formula which can be applied to determine the rate exactly. The rate can be approximated in several ways, two of which will be explained.

A 25 year 6% $100 bond, interest payable semi-annually, is purchased for $110.38. What is the effective rate?

This price of $110.38 is shown by a bond table to be the price on a 5.25% basis. The bond table shows:

	25 years	6%
5.20%		111.12
5.25		110.38
5.30		109.64

But let us assume that the 110.38 is not shown by the table and that the nearest values are

On a 5.20 basis	111.12
On a 5.30 "	109.64

Then .10 of one per cent. difference in the rate causes 1.48 difference in price.

Price on a 5.20 basis	111.12
Price given in illustration	110.38
Difference	.74

Then to find the approximate rate, add to 5.20%.

$$\frac{74}{148} \text{ of } .10 \text{ of } 1\%$$

$$\frac{74}{148} \text{ of } .10 = .05$$

$$5.20\% + .05\% = 5.25\% \text{ the rate.}$$

This rate happens to be exactly correct, but it is very unusual to obtain exact results by interpolation.

The rate may be approximated by the following formulas when bond tables are not available for interpolation:

Bond at a premium:

$$r = \frac{2\,(I - Pr)}{n\left(C + P + \frac{Pr}{n}\right)}$$

Bond at a discount:

$$r = \frac{2\,(I + D)}{n\left(C + P - \frac{D}{n}\right)}$$

The symbols used are:

r—effective rate per period
I—total interest on bonds
Pr—premium
D—discount
C—cost (par + premium; or par — discount).
n—number of interest periods.

Applying the first formula to the illustration:

$$r = \frac{2\ (150-10.38)}{50\left(110.38+100+\frac{10.38}{50}\right)} = 2.65\% \text{ per period}$$

or 5.30% per annum.

It will be noted that this result is much less exact than the one obtained by interpolation—still it is useful when one has no bond table and desires to obtain a rough approximation of the rate.

Illustration of bond at a discount: a 10 year 5% $100 bond is bought at 96.94. Interest is payable semi-annually. What is the approximate effective rate?

$$r = \frac{2\ (50+3.06)}{20\left(96.94+100-\frac{3.06}{20}\right)} = 2.692\% \text{ per period}$$

or 5.384% per annum.

The true effective rate is 5.40%.

This method produces a rate which is too large on bonds sold at a premium and too small on bonds sold at a discount. The error is due to the fact that the formula is based on arithmetical progression, while the amortized premium or discount does not increase or decrease periodically in an arithmetical progression.

Depreciation

Two depreciation methods—the annuity and sinking fund methods—involve compound interest. When the annuity method is used, the investment in the depreciating asset is dealt with as if it were an investment in an annuity. The periodical depreciation charges are analogous to rents and must be large enough to exhaust the cost of the asset, or the cost less residual value, and also provide for the interest. In other words, the charge to opera-

tions for depreciation must provide for credits to interest, for interest on the gradually diminishing investment, and for credits to the depreciation reserve. The amount of the credit to interest is computed by multiplying the carrying value of the asset (cost less reserve at beginning of period) by the interest rate. The credit to the reserve is the difference between the charge to depreciation and the credit to interest.

When there is no scrap value, the formula for computing the periodical depreciation, is

$$d = \frac{c}{P}$$

In this formula:

d=periodical depreciation
c=cost of asset
P=present value of annuity of 1.

Illustration: what is the annual depreciation on an asset costing $5,000 which will have no value at the end of five years, if depreciation is to be computed by the annuity method using a rate of 5%? Present value at 5% of 1 due 5 periods hence is .783526166.

Then .216473834÷.05=4.32947668, or P.

$$d = \frac{5000}{4.32947668} = 1{,}154.87.$$

The annual depreciation entries may be tabulated thus:

Year	Debit depreciation	Credit interest	Credit reserve	Carrying value
				5,000.00
1	1,154.87	250.00	904.87	4,095.13
2	1,154.87	204.76	950.11	3,145.02
3	1,154.87	157.25	997.62	2,147.40
4	1,154.87	107.37	1,047.50	1,099.90
5	1,154.87	55.00	1,099.87	.03

When there is a scrap value, the formula is:

$$d = \frac{c - (s \times p)}{P}$$

In which the new symbols are s, representing scrap value and p, representing present value of 1.

Assuming that the asset in the preceding illustration will have a residual value of $2,000 at the end of 5 years, what should be the annual depreciation?

The present value of 1 at 5% due in 5 periods, was stated in the illustration to be .783526166; and the present value of an annuity of 1 for 5 periods at 5% was computed above, as 4.32947668. Then

$$d = \frac{5000-(2000 \times .783526166)}{4.32947668} = 792.92.$$

The annual depreciation entries may be tabulated thus:

Year	Debit depreciation	Credit interest	Credit reserve	Carrying value
				5,000.00
1	792.92	250.00	542.92	4,457.08
2	792.92	222.85	570.07	3,887.01
3	792.92	194.35	598.57	3,288.44
4	792.92	164.42	628.50	2,659.94
5	792.92	133.00	659.92	2,000.02

The sinking fund method is based on the assumption that a fund is created at compound interest to equal the total depreciation. If a fund is created, the contribution is computed in accordance with the formula already stated and explained, namely:

$$S.F.C. = S.F. \div A$$

Since the total fund required is the difference between the cost and the scrap value of the asset, the formula for determining the periodical contribution to the fund is

$$S.F.C. = \frac{c-s}{A}$$

Illustration: what annual contribution should be made to a fund on a 5% basis, compounded annually, to provide for an asset costing $5,000.00 and expected to have a residual value of $2,000 at the expiration of 5 years? And what should be the annual entries for the fund and the depreciation reserve? $1.05^5 = 1.276282$.

$$A = .276282 \div .05 = 5.52564$$

$$S.F.C. = \frac{5000-2000}{5.52564} = 542.92$$

Table of Fund Entries

Year	Debit fund	Credit interest	Credit cash	Balance fund
1	542.92		542.92	542.92
2	570.07	27.15	542.92	1,112.99
3	598.57	55.65	542.92	1,711.56
4	628.50	85.58	542.92	2,340.06
5	659.92	117.00	542.92	2,999.98

The reserve should keep pace with the fund so that at the end of the anticipated life of the asset, the fund and the reserve each will equal the total depreciation. Therefore, the amount charged each year to the fund, as shown in the "debit fund" column, should be charged to depreciation and credited to the reserve for depreciation.

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EDITORIAL

Professional Ethics

The number of circular letters emanating from stationers, office supply houses and similar concerns offering commissions to accountants for any contracts which they may be able to place on behalf of clients indicates that there must be now and then an accountant who is ignorant of the laws of ethics or wilfully flouts them.

Recently a member of the American Institute of Accountants forwarded to this office a letter from a New York concern in which the following paragraph appeared:

> "We can make you an attractive proposition whereby we give you 5% commission on any contracts your clients may give us at your instance, or if you prefer you can make the contracts direct with your clients and sublet them to us, in which case we could give you the quotation."

Other offers of the same kind, some of them implying a belief in a much more debased condition of practice have been distributed within the past few months.

Of course, even in purely commercial undertakings it would not be free from objection if an agent were to accept commissions for contracts placed on behalf of a principal in the way inferred in the letter above quoted, but in the case of a professional practitioner the offense would be far worse.

The American Institute of Accountants has laid down a code of ethics and is adding to it year by year as cases arise which call for a more particular expression of the practice approved by the best thought in the profession.

The code contains a specific prohibition of commissions of any kind. Possibly if this fact were brought to the attention of stationers and others who are guilty of offering commissions they might be inclined to a feeling of greater respect for the profession which they now insult.

Repeated inquiries are received as to what are the rules of conduct approved by the institute. In response to that request we publish herewith the code as it was amended at the time of the annual meeting in September.

Not only will the rule against commissions be read with interest, but that relating to contingent fees is of peculiar importance at this time in view of the temptations of income tax practice. Other rules in the list are also of continuing value and importance.

AMERICAN INSTITUTE OF ACCOUNTANTS

Rules of Professional Conduct

Including amendments and additions prepared by the committee on professional ethics and approved by the council prior to September 30, 1919.

(1) A firm or partnership, all the individual members of which are members of the institute (or in part members and in part associates, provided all the members of the firm are either members or associates) may describe itself as "Members of the American Institute of Accountants"; but a firm or partnership, all the individual members of which are not members of the institute (or in part members and in part associates), or an individual practising under a style denoting a partnership when in fact there be no partner or partners, or a corporation, or an individual or individuals practising under a style denoting a corporate organization shall not use the designation "Members (or Associates) of the American Institute of Accountants."

(2) The preparation and certification of exhibits, statements, schedules or other forms of accountancy work, containing an essential mis-statement of fact or omission therefrom of such a fact as would amount to an essential mis-statement, shall be, *ipso facto,* cause for expulsion or for such other discipline as the council may impose, upon proper presentation of proof that such mis-statement was either wilful or was the result of such gross negligence as to be inexcusable.

(3) No member shall allow any person to practise in his name as a public accountant who is not a member of the institute or in partnership with him or in his employ on a salary.

(4) No member shall directly or indirectly allow or agree to allow a commission, brokerage or other participation by the laity in the fees or profits of his professional work; nor shall he accept directly or indirectly from the laity any commission, brokerage or other participation for professional or commercial business turned over to others as an incident of his services to clients.

(5) No member shall engage in any business or occupation conjointly with that of a public accountant, which in the opinion of the executive committee or of the council is incompatible or inconsistent therewith.

(6) No member shall certify any accounts, exhibits, statements, schedules or other forms of accountancy work which have not been verified entirely under the supervision of himself, a member of his firm, one of his staff, a member of this institute or a member of a similar association of good standing in foreign countries which has been approved by the council.

(7) No member shall take part in any effort to secure the enactment or amendment of any state or federal law or of any regulation of any governmental or civic body, affecting the practice of the profession, without giving immediate notice thereof to the secretary of the institute, who in turn shall at once advise the executive committee or the council.

(8) No member shall directly or indirectly solicit the clients or encroach upon the business of another member, but it is the right of any member to give proper service and advice to those asking such service or advice.

(9) For a period not exceeding two years after notice by the committee on ethical publicity no member or associate shall be permitted to distribute circulars or other instruments of publicity without the consent and approval of said committee.

(10) No member shall directly or indirectly offer employment to an employe of a fellow member without first informing said fellow member of his intent. This rule shall not be construed so as to inhibit negotiations with any one who of his own initiative or in response to public advertisement shall apply to a member for employment.

(11) No member shall render professional service, the anticipated fee for which shall be contingent upon his findings and results thereof. This rule shall be construed as inhibiting only services in which the accountant's findings or expert opinion might be influenced by considerations of personal financial interest.

Tax Return Makers

From time to time we have published in these pages examples of letters of solicitation sent out by so-called tax experts. One of the most noteworthy came to hand recently addressed to the American Association of Public Accountants.

For the benefit of those who are unfamiliar with the ways of some of the "tax experts" we publish the letter herewith and draw particular attention to the statement that a saving can be effected in all cases:

July 9, 1919

AMER. ASSN. OF PUBLIC ACCTS.
1 Liberty Street, City. Subject—Capital Stock Tax Returns

GENTLEMEN:

For the past fifteen years I have been engaged in various financial and accounting departments of the U. S. Government, and during the past year have been employed as an examiner in the capital stock tax division of the Bureau of Internal Revenue, Treasury Department, Washington, D. C. As a result I am familiar with the departmental methods of determining the fair average value of the capital stock of corporations, and am in a position to advise as to which exhibit could best be used in the interest of your client, or on what percentage earnings could properly be capitalized.

I would consider a working arrangement whereby I could devote a part of my time to handling your capital stock tax business. The detail we can discuss to better mutual advantage in a personal interview. Without any knowledge of the returns your clients will make for 1920 or those filed for 1919 there exists no doubt in my mind as to my ability to show a saving.

Trusting you will grant me the courtesy of an interview for the purpose of discussing the matter further, I am

Very respectfully yours,

Value of Audited Statements

Accountants have been preaching the doctrine of the value of audited statements for so many years that they sometimes become discouraged at the apparently slow progress which the campaign of education makes. There is, however, a steady and gratifying spread of appreciation of the facts, and business men as a rule are ready to admit that there is a distinct advantage to be derived

from the services of an auditor. Ultimately of course the audited statement will be universal where modern methods prevail, but it is with present developments that we are now concerned.

Bankers have refrained from insisting upon audited statements chiefly because of the fear of driving away customers. If one bank required audited statements and its neighbor across the street did not, it has been the belief that there would be a large number of customers going to the second bank and reducing the volume of business of the first.

Bankers recognize the facts, however, and it is gratifying to find publication of the facts where it will do much good.

As an illustration we quote the following from the *Bulletin* of the New York Credit Men's Association of November, 1919:

THE VALUE OF AUDITED STATEMENTS

It has become the custom among many progressive manufacturers and merchants to have attached to their financial statements the certificate of a competent public auditor, and several prominent New York banks and commercial note brokers are endeavoring to make the custom universal. If the business men of the country generally would fully realize the prestige given their paper in the open market by an audit of their books they would take steps in this direction at once. The city and country banks which invest their surplus funds in outside notes must rely very largely upon the statements presented to them by the note brokers, and where the statements appear on their face equally attractive the banks naturally give preference to the note of a house whose figures are certified to them by competent and disinterested public accountants. The banks and note brokers do well to insist upon audited statements in order to render their business safer, but the mercantile community as a whole has not yet fully realized the importance of the audited statement in finding a broader and more ready market in which to secure their requirements and the larger trade facilities generally that go with an unquestioned credit. Manufacturers and merchants should bear in mind that nothing will so well give them this unquestioned credit as an attractive financial statement whose figures are verified by public auditors of good repute.

It is to be hoped that the sound logic of the foregoing comment will impress itself upon those who read it.

Efficiency

If there is any one word in the vocabulary of which the public is heartily weary it is "efficiency." We have had so much talk of efficiency and so many fakers have paraded under the guise of producers of efficiency that it has become a word to be used seldom and with great care.

(11) No member shall render professional service, the anticipated fee for which shall be contingent upon his findings and results thereof. This rule shall be construed as inhibiting only services in which the accountant's findings or expert opinion might be influenced by considerations of personal financial interest.

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Accountants especially should be wary of this badly strained word. There is a considerable portion of the public which has not learned to distinguish between the man who professes to understand the things which make for true efficiency and the man who really can bring about greater production and wider results in business, finance and industry.

It is always a matter of some gratification to us to learn of destruction of the efficiency bubble, and we believe that many of our readers have the same feeling. Accordingly, the following story from the *Washington Star* will probably appeal to a great majority of the readers of this magazine.

"Fads and crazes," said Representative Cordell Hull, of Tennessee, "invade the world of business the same as they invade the world of fashion. They soon die out, though.

"Take the scientific management craze. A young man applied to a friend of mine the other day in Nashville for a job.

"'Look here!' said my friend, 'your face seems very familiar. Didn't you use to represent the Efficiency Engineers' Corporation? You wanted me to let the efficiency engineers bring my business up to date, didn't you? What has become of the concern?'

"'Busted, sir.'

"'Then you tackled me as the representative of a system. You called yourself an affairs doctor. You offered to put my affairs on sound, modern lines. Is that system busted, too?'

"'Yes, sir; she's busted.'

"'Well, after that you got the lost motion idea. You wanted to prove that this back number mill of mine wasted over 70 per cent. of its time in lost motion. What about the lost motion company?'

"'Busted, too, sir.'

"'Humph!' said he. 'For years you've been offering to teach me my business and now, when your employers all go up, you ask me for a job. What use would you be to me?'

"'With my varied and vast experience in such matters,' said the applicant, 'I'd be very useful, indeed, sir, in the event of your failure.'"

Auditors' Certificates

Every accountant has read or taken part in discussions as to the proper form of certificate, and we are gradually getting to a point where the public may expect to have all certificates so expressed as to be intelligible and comprehensive.

Occasionally in the past, however, there was a certificate which was more or less adequate to the occasion and we have recently received copy of one published by a railroad company which is of interest for its quaint phraseology and also for the accuracy and intelligibility of its construction:

Copy of Auditors' Certificate

January 2, 1846

We have examined the treasure account for the year 1845 as stated on this page and find the same rightly charged, well vouched and properly cast and balanced and there is now due from the treasurer the sum of ten thousand, two hundred forty-two dollars and forty-nine cents which he will carry to new account with the corporation.

Signed by four directors

Income Tax Department

EDITED BY JOHN B. NIVEN

The only change made in the amended article 1506, issued under T. D. 2943, is the exclusion of Virginia partnership associations from those, like Michigan partnership associations, mentioned in the next to last sentence as being uniformly treated as corporations.

The court decision under T. D. 2944, regarding deductibility of bond discount, has no relation to present conditions. It relates to the 1909 act only, under which the court ruled that the pro-rated instalments of discount on bonds sold were not deductible because they were neither interest nor a loss. Now, under regulations 45, such discount is deductible—and as interest. The subject is fully discussed in article 544, wherein the treatment is carefully and properly worked out for all conditions, whether the bonds are sold at par, at a discount or at a premium. If the bonds are sold at par, discount on the purchase is to be credited as income and premiums paid are to be deducted as expense all at once—that is, in the year when the purchase occurs. If bonds are sold at a premium or discount, the premium or discount is to be pro-rated over the life of the bonds, as income or expense, as the case may be, and only the difference between the premium or discount on retirement and the corresponding amount remaining unaccounted for as income or expense on the bonds purchased must be reported in the year when the bonds are repurchased.

TREASURY RULINGS

(T. D. 2943, Nov. 6, 1919.)

Income tax—Limited partnerships as a corporation.

Article 1506 of regulations 45 is hereby amended to read as follows:

Art. 1506. Limited partnership as corporation.—On the other hand, limited partnerships of the type of partnerships with limited liability or partnership associations authorized by the statutes of Pennsylvania and of a few other states are only nominally partnerships. Such so-called limited partnerships, offering opportunity for limiting the liability of all the members, providing for the transferability of partnership shares, and capable of holding real estate and bringing suit in the common name are more truly corporations than partnerships and must make returns of income and pay the tax as corporations. The income received by the members out of the earnings of such limited partnerships will be treated in their personal returns in the same manner as distributions on the stock of corporations. In all doubtful cases limited partnerships will be treated as corporations unless they submit satisfactory proof that they are not in effect so organized. A Michigan partnership association is a corporation. Such a corporation may or may not be a personal service corporation. See sections 200 and 218 of the statute and articles 1523-1532.

(T. D. 2944, Nov. 8, 1919.)

Income tax—Decision of court.

DEDUCTION UNDER SECTION 38, ACT OF AUGUST 5, 1909, OF DISCOUNT ON BONDS SOLD.

Where a corporation sold bonds at a discount during 1906, 1907, and 1908 no deduction from gross income for the years 1909, 1910, and 1911 of sums set aside by the corporation to pay such discount at the maturity of the bonds is permitted under the provisions of section 38, act of August 5, 1909, authorizing corporations to deduct from gross income "(second) all losses actually sustained within the year * * *" and "(third) interest actually paid within the year on its bonded or other indebtedness * * *."—*Baldwin Locomotive Works v. McCouch* (221 Fed., 59) explained.

The appended decision of the United States circuit court of appeals for the ninth circuit in the case of *Southern Pacific Railroad Co. v. Muenter* is published not as a ruling of the treasury department but for the information of internal-revenue officers and others concerned.

IN THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE NINTH CIRCUIT.

No. 3286 AND 3287, ——— TERM, 1919.

Southern Pacific Railroad Co., a corporation, plaintiff in error, v. August E. Muenter, formerly collector of internal revenue, et al., defendants in error.

(In error to the United States District Court for the Northern District of California.)

Before GILBERT, ROSS, and HUNT, circuit judges.

GILBERT, circuit judge: The court below sustained a demurrer to the complaint brought by the plaintiff in error to recover certain items of corporation income tax paid under protest upon its net income for the years 1909, 1910, and 1911. The complaint alleged that during the years 1906, 1907, 1908, the plaintiff in error borrowed various sums of money, and as security therefor issued and sold interest-bearing bonds of the par value of $1,000, drawing interest at 4 per cent. per annum, and maturing on the first day of January, 1955, which bonds it was necessary to sell at a discount. The amount involved in the action is the sum of $1,392.22, income tax upon reserved sums of money which the plaintiff in error had set aside as the pro rata amount of the discount for the years in question distributed over the entire period until the maturity of the bonds, the plaintiff in error contending that the discount is to be regarded as a portion of the interest which it pays upon the loans. The question presented is whether or not money so reserved and set aside by book entries to meet the final payment of the discount could be deducted from the net income of the corporation under the income tax law of 1909 (36 Stat., 102, sec. 38). That act, so far as it pertains to this question, provides that the net income upon which the tax is to be assessed is ascertained by deducting from the gross income (second) all losses actually sustained within the year and not compensated by insurance or otherwise, (third) interest actually paid within the year on its bonded or other indebtedness. The plaintiff in error refers to *Baldwin Locomotive Works v. McCoach* (215 Fed., 967), and the same case on appeal (221 Fed., 59), as sustaining its contention. In that case the bonds were 31-year bonds, and the assessor thought it proper to deduct one-thirty-first of the total discount from the gross income of each taxable year. The controverted question in the case, however, was whether or not

the corporation could deduct for the year 1910 the total discount upon the bonds which they had sold at 5 per cent. discount. The court held that a book charge because of the sale of an issue of bonds at less than par is not a part of the "expenses actually paid within the year out of income" so as to be deducted from gross income. There was no discussion of the question whether one-thirty-first part of the total discount deducted for the year had been deducted lawfully, as that deduction was not involved in the controversy. We think the present case is determined adversely to the plaintiff in error by the plain language of the statute. The money set apart upon the books each year until the maturity of the bonds to meet the loss which came from selling the bonds below par was the application of a prudent and proper system of business, and was a wise provision for the future, but it was not the payment of interest, nor did it represent a loss actually sustained within the year. The money was not in fact paid out. Notwithstanding the books of the plaintiff in error the money is still in its possession, and subject to its control. A system of bookkeeping will not justify the Government in claiming taxes, nor will it justify the taxpayer in claiming exemption from taxation. The facts must control. *Baldwin Locomotive Works v. McCoach* (221 Fed., 59); *Mitchell Bros. v. Doyle* (225 Fed., 437).

The judgment is affirmed.

Students' Department

EDITED BY SEYMOUR WALTON

ASSISTED BY H. A. FINNEY

PROFITS AND DIVIDENDS

Many accountants have taken the position that some classes of profits must not be credited to surplus, because they are not available for dividends. Some go so far as to say that dividends cannot be paid except from those profits which are the results of operations of a normal and regular character.

In the discussions of this question much confusion has arisen from the use of the word "should." In treating of the right of directors to pay dividends out of contributed surplus, it is often said that they should not do so. Whether intended to be so construed or not, it is undoubtedly true that the statement is generally understood to mean that the directors could not legally pay such dividends. It may have been intended to mean only that the directors are morally bound not to deceive the stockholders and, therefore, ought not to mislead them by tacitly allowing them to think that a dividend had been paid out of earned profits, when it actually came out of the surplus paid in by the stockholders themselves.

In determining the earning power of a business only those profits are to be considered which are the result of the normal operation of the enterprise, and in stating those profits only those elements are to be included which are necessary to the operations. Since it is not essential to a commercial enterprise that it should borrow or lend money, interest is not to be classed as an operating expense or profit. Cash discount would be subject to the same ruling unless it is treated as a reduction of price instead of a financial item similar to interest. Bad debts are also excluded from the operating expense, both on the ground that they are the fault of the management and not of the operating departments, and because they are theoretically not essential to any business.

There are then expenses and profits which are not part of the operations of a business, strictly speaking, and yet, as every one will admit, they affect the final profits out of which dividends are payable.

One source of profits outside of normal operations is the sale of fixed assets for more than was paid for them. When land is the only asset sold, the increase in the price realized is, without any doubt, an extraneous profit to which operations have contributed nothing. But when buildings are included, or any other assets on which depreciation has been regularly charged off, such as horses and wagons, the situation may be complicated. If an account has been kept with "land and buildings," with a reserve account to which has been regularly credited the depreciation on the buildings, and all the real estate has been sold for a price in excess of the book value, there are two possible explanations of the excess.

Each asset may have realized more than its book value.

One asset may have realized more and the other less than its book value, the difference, of course, being the excess of the whole amount realized over the book value of the combined account.

To illustrate: suppose land cost $25,000 and buildings $75,000 and there is a reserve for depreciation of buildings of $30,000, the net carrying value of land and buildings would be $70,000. If they are now sold for $85,000, there is an apparent profit of $15,000. To determine where the profit is made it will be necessary to separate land from buildings, not only in the account but also in the sale. After charging $30,000 to reserve for depreciation and crediting it to buildings, the terms of the sale are analyzed to find that the land was valued at $35,000 and the buildings at $50,000. The result of the sale would therefore be:

Book value, land	25,000	Realized	35,000	Profit	10,000
Buildings	45,000	"	50,000	"	(?) 5,000
	70,000		85,000		15,000

On the other hand the analysis of the sale may show that $45,000 was allowed for the land and only $40,000 for the buildings, the result being:

Book value, land	25,000	Realized	45,000	Profit	20,000
Buildings	45,000	"	40,000	Loss	5,000
	70,000		85,000	Net profit	15,000

In the first case the increased value of the land is, without any doubt, a realized profit, but the excess of $5,000 attributable to the building is not. It must be remembered that the depreciation reserve set up was based entirely on an estimate. Therefore the carrying value of the buildings at $45,000 was merely the judgment of some one as to their present worth. The realization of $50,000 for them proves that the judgment was at fault, and that too much depreciation has been allowed. The charging off of $5,000 more depreciation than had actually been suffered has reduced the operating profits in the past and this reduction has been reflected in a corresponding reduction of the surplus. To correct the error the regular surplus account must receive the credit, whatever the disposition made of the $10,000 increase in the land.

In the second case the same reasoning would make necessary a charge to regular surplus to correct the deficiency in the past charges for depreciation, and the extraneous profit to be dealt with would be $20,000 instead of the net, $15,000. This would be subject to change, however, if it were decided that the depreciation in the past had been correct for a going business, and that the present loss on the buildings had been taken in order to secure the profit on the land. The loss may not be due to depreciation, but to the fact that expensive alterations may be necessary to fit the requirements of the purchasers. In this event, the extraneous profit would be the net $15,000.

Another source of extraneous profit or surplus is that which is contributed by the stockholders. This is sometimes done at the inception of a corporation by paying in more than par for the original stock. The only way in which this surplus can be so fixed that the directors cannot pay dividends out of it is by having it made a condition in the original subscription that no part of the contributed surplus shall be used, directly or indirectly, for the declaration of dividends. This would take it out of the power of the directors, but it would still be possible for the stockholders to rescind their action and allow the distribution of the surplus.

The advice is often given to auditors to insist upon the putting of such surplus into an account that will show its true character, such as "contributed surplus" or "surplus unavailable for dividends." There is no question that this would be advisable, but the reason is that stockholders, having become accustomed to seeing the item in the balance-sheet, will inquire why it has disappeared or been reduced. The reason is not the one usually given—that it will prevent the directors from using it for dividends—because, in the absence of a contract with the stockholders, the directors can, at their pleasure, reverse their action and transfer the whole amount to ordinary surplus, where it will be available for dividends.

One class of contributed surplus is unquestionably to be credited to the regular surplus account where it is available for dividends to exactly the same extent as the surplus earned by operations. This condition occurs when the outstanding stock of a company that already has a surplus is increased either by the sale of treasury stock or of a new issue of shares. Suppose that a company has a capital stock outstanding of $10,000 and a surplus of $10,000, and that an outsider wishes to turn in property at an agreed valuation of $20,000 for additional stock to be issued. It would be manifestly unfair to sell the newcomer $20,000 at par, for he would then own two-thirds of a net worth of $40,000 (capital $30,000, surplus $10,000). This would give him an interest worth $26,667 for which he had paid only $20,000 and would reduce the holdings of the old stockholders from $20,000 to $13,333. Unless the old stockholders first declare and issue to themselves a stock dividend of 100 per cent., the newcomer must be given stock for a par value of $10,000, and surplus must be credited with the other $10,000. This is contributed surplus, but by no possibility can it be classed with the surplus that is contributed by all the stockholders.

The object to be gained by the sale of the new stock is the doubling of the capital conditions of the company. Therefore the stock issued to the newcomer must be of exactly the same character as that held by the old stockholders. The old capitalization consisted of two elements, the capital stock of $10,000, and an equal amount of surplus available for dividends. For the newcomer to contribute capital stock of $10,000 and a surplus of $10,000 which is not available for dividends would mean that he has not exactly matched the old stock. After the sale the company must show a stock capital of $20,000 and a surplus of $20,000, and all of the latter must

be available for dividends. To argue otherwise would be to claim that there could exist differences between different shares of the same class of stock.

The question of an estimated profit arising from an appraisal of fixed assets at a figure above their carrying value when the excess value is based on market conditions alone is more complicated. On this subject R. H. Montgomery says:

"Many business men who secure an appraisal which sets forth that their buildings and machinery are, on the basis of a replaceable valuation less depreciation, worth more than they cost originally, wish to set up on their books and statements this diagnosis, and do not like to be told that they are making trouble for themselves. They have a larger valuation to wipe out by depreciation reserves, and thus, in a sense, they are increasing their cost of production. After a credit to surplus account is made it is most unlikely that any part thereof will be used except for dividends.

"The law on the subject of profits is not well settled, and will not be so long as the majority of lawyers retain their profound ignorance of accounts, but it is quite likely that no legal obstacle would prevent a corporation from revaluing part of its assets and applying the excess so raised to surplus available for dividends. With the law in such an unsatisfactory condition it remains for the professional auditor to educate the business public to the principle that it is not only foolhardy but unscientific to write up the value of an asset which is not for sale and which therefore cannot be represented by cash or its equivalent. Funds for dividends should be realized from the earnings, otherwise the working capital of the company is permanently depleted if a cash dividend is declared out of surplus created in the manner stated.

"There may be in exceptional cases an obvious rise in value of an item of fixed assets, but a footnote in the balance-sheet is all that is required to secure the benefit of an increased credit rating, and any adjustment of the account in the books by increasing the asset crediting surplus is rarely permitted by good accounting practice."

It is to be noted that Mr. Montgomery does not speak of land. In another place however, he says:

"Land should appear in the balance-sheet at cost, and should not be written up, although it may be clearly established that values have increased. As a matter of fact, an increment in the value of land usually means higher taxes, with no increase in earning power, so that the increased valuation is a detriment so far as current operations are concerned. The business does not receive any benefit therefrom except in case of a sale or a liquidation, and an adjustment of the book value need not be considered till these actually occur."

A. Lowes Dickinson says on this subject:

"It is necessary to recognize that there are causes at work, particularly in young and growing communities, which may render a statement prepared on the basis of cost of capital assets misleading and even pre-

judicial to the proper interests of present owners. Over a period of years changes in value due to rise or fall in prices may be sufficiently permanent to render it unfair to one business to maintain original cost values with another whose assets have been created at widely varying costs. Moreover, even where constructed works may have fallen in value owing to depreciation or obsolescence which has not been provided for, there may be an offsetting increase in the value of land and its subsoil or other natural products due to the development of the community and consequent largely increased demand. It is true that from the point of view of earnings such increment may not be taken as in any way a proper offset to losses due to wear and tear, depreciation or obsolescence; but this does not alter the fact that in spite of an insufficient provision of depreciation on some assets, there may be an actual increase on the total value of all assets. In fact, there are well-known cases in which by far the larger part of the ultimate profits of a corporation over a long series of years has been due not to the results of its activities but to the large unearned increment on its capital assets. This condition must be recognized and is frequently met by means of careful appraisals of all properties, the resulting increase (or possibly decrease) being taken up as a special credit or debit to profit and loss account (or surplus) and shown as entirely distinct from the operating results.

"In the case, too, of a sale of a portion of the capital assets it may be entirely legitimate to take up any profit just as it may be necessary to provide for a loss. This may be done by means of an appraisal of the property remaining unsold, the difference between this figure and the book figure, after deduction of the sale price of the portion sold, being treated as the estimated profit or loss arising on the sale and appraisal. This being divided proportionately to the sale and appraisal figures, the former will represent the approximate profit or loss on the sale. It is undoubtedly more conservative to treat profits so arising as a capital reserve available to meet possible losses from further sales or ultimate realization, while losses if clearly ascertained would be written off either at once against past surplus or by instalments against future earnings. There are, however, cases in which a surplus exists beyond all reasonable doubt and no objection can be taken to treating at any rate a substantial portion thereof as realized and divisible. It is always difficult to come to a decision as to the best treatment in cases of this kind; as in many others, each must be considered on its merits, with due regard to safety in finance and justice to the varying interests of present and future owners."

It is to be noted that Mr. Montgomery is much more emphatic in his condemnation of the writing up of fixed assets than is Mr. Dickinson. Neither of them brings out with sufficient clearness the folly of writing up the present value of assets subject to depreciation. Such an increase would be registered as a present profit or addition to surplus with the certain knowledge that it will be eventually lost through the increased charges for depreciation. Present profits founded on future losses are

not only unscientific—they are foolish in the extreme. No accountant should lend his sanction to such practice.

In regard to land there would be really more justification in writing up the value if there were any way to insure the permanency of the increased valuation. Real estate is subject to very violent changes in market price. When business is prosperous a good manufacturing site may command a price far in excess of its cost, but in hard times the same property may be almost unsalable. It is a very dangerous doctrine that a company may write up even a portion of an estimated increase in the value of land and may credit the amount to surplus. Mr. Dickinson's suggestion that the increase should be credited to a capital reserve will not meet with the views of the directors who wish to write up the land. Their object is to enhance the financial standing of the concern by increasing its surplus, even if they do not wish to declare dividends against the increase. If they wished only to show that they owned an asset much more valuable than its book value, it would suffice to have the balance-sheet show the large market value in a parenthesis, as Mr. Montgomery suggests.

If the directors insist upon writing up the value of land, an auditor should protest against the action, and should explicitly deny in his certificate that he assumed any responsibility for the valuation put upon that asset. How far the directors are personally responsible for paying dividends based solely on an increase in market value does not seem to be definitely determined, but there is at least one English decision which held directors responsible to creditors because they had paid large dividends based upon advance in market price of land which was not permanent. When the land reverted to its original market value the decline was sufficient to bankrupt the company so that it could not pay its creditors, and the directors were obliged to make up the shortage.

Dividends are payable out of profits, but those profits must be real and must not consist merely of a book entry. They must be represented by cash or by its equivalent which can be sold for cash or add actual value to the business as an operating enterprise. Land which cost $25,000 is no more valuable to the business because it is now supposed to be worth $50,000.

But if the profits are real and are represented by available additions to the business, they are no less profits because they do not happen to have been made in the normal operations of the business. To say that such profits are not to be credited to the regular surplus account and be available for dividends is as illogical as it would be to say that a loss on the sale of a fixed asset should not be charged to surplus and thus decrease the power to declare dividends. If the land that cost $25,000 has been sold for $15,000 no one will deny that $10,000 must be charged to surplus and not to "special deficit," but some accountants claim that if it sold for $35,000, the gain of $10,000 should be credited to "special surplus" or "special reserve" and that it could not be used for dividends.

The truth seems to be self-evident that a real profit is a profit, and that surplus is accumulated profit. When it is once decided that a profit is

real that is no alternative except to put it with all the other profits into the surplus account. Of course the officers and directors should not allow the stockholders to believe that any large increase in the surplus or in the dividend was caused by the normal operations, but that is really a question of morals rather than of accounting.

Those who claim that profits other than those from normal operations must be credited to a special account and cannot be used for dividends are curiously silent as to what will eventually become of the special account. If it is wrong to credit the amount to surplus at the time the asset is sold, it will be equally wrong ten, twenty or fifty years later. The account must hang, like Mohomet's coffin, between heaven and earth. It is like a mirage, very beautiful to look at, but utterly useless, because unattainable.

In following out such a theory a company that already had a working capital that was too large, if anything, would be obliged still further to increase it and to carry a large balance of idle cash, or at best invest in bonds bearing a comparatively low rate of interest. Stockholders who could use the money to better advantage if allowed to have it as a dividend would not have much patience with sophistries that are utterly contrary to all commonsense.

Another strange claim that is sometimes made is that extraneous profits, while not available for cash dividends, may be used as the basis for stock dividends. Such a claim indicates an entire misconception of the legal and accounting principles governing the declaration of dividends. The right to declare a dividend depends entirely upon the size of the surplus balance. The directors can declare a dividend to the full extent of that balance, provided, of course, that it is a legitimate balance, accumulated from real profits of whatever kind, and not one made up of fictitious profits prepared to deceive creditors or stockholders. What form the dividend will take depends entirely upon the judgment of the directors, guided by the financial condition of the company. There are no conditions under which it would be legally right to declare a stock dividend and wrong to declare one payable in cash. The possession or lack of available ready money would be the only determining factor, as a rule.

There is one condition under which the right to declare a dividend has never been discussed as far as we know. This condition occurs when a part of the earned surplus has been appropriated to cover a sinking fund for bonds, and the company has enough idle cash on hand to pay a dividend larger than the free surplus remaining. This condition is necessarily a very uncommon one, because the idle cash must have come from some other source than profits. It could not come from profits because the surplus account would always be at least as large as the amount of cash produced by the profit, and there would be no money available with which to pay a dividend greater than the free surplus. Suppose such a condition as the following:

Land not in use	100,000	Capital stock		500,000
Sinking fund bonds	150,000	Bonds		400,000
Other assets	950,000	Accounts payable		125,000
		Surplus:		
		Appropriated	150,000	
		Free	25,000	175,000
	1,200,000			1,200,000

The land not in use was originally purchased with the intention of using it for workmen's cottages and is not covered by the bond mortgage. This intention is now abandoned and the land is sold for $100,000 cash, there being no profit or loss in the deal. The working capital before the land was sold was sufficient, so that the directors find themselves after the sale in possession of $100,000 for which they have not the slightest use. Can they declare and pay a dividend larger than the $25,000 free surplus?

We claim that they can. There is no question that the dividend would be declared out of accumulated profits, therefore it would be legal as far as that point was concerned. There remains only the contract with the bondholders to be considered. The trust deed obligates the company to set aside a certain sinking fund at regular intervals "out of profits." This can mean nothing else than that the sinking fund instalments shall be paid "out of the funds realized from profits." It is a precautionary measure intended to prevent the directors from dissipating the funds by paying dividends before the required contribution to the sinking fund is provided. But it does not prevent the making of contributions to the sinking fund by the use of money that is obtained from sources other than profits. Therefore the company could use the $100,000 idle cash to buy that amount of bonds for the sinking fund, thus putting themselves in the position of having anticipated the requirements of the trust deed by $100,000 plus the difference between that sum and the present value of instalments amounting to $100,000.

It does not seem to need any argument to prove that this anticipation of the instalments which it had been intended should be provided for by future profits would release those profits from the requirements of the trust deed and make them available for dividends. If all the profits were thus distributed in dividends up to $100,000, the situation, other things being equal, would be:

Sinking fund bonds	250,000	Capital stock	500,000
Other assets	950,000	Bonds	400,000
		Accounts payable	125,000
		Surplus, all appropriated	175,000
	1,200,000		1,200,000

No one could object to this disposition of the $100,000 cash. The bondholders would be satisfied because the sinking fund established for their

protection is as large as they have any right to claim that it should be at this date, and the stockholders would naturally not complain at receiving the extra dividend.

But if it is admissible to devote the unexpected cash to the sinking fund and the money derived from subsequent profits to the payment of dividends, the converse must be held to be equally admissible, namely, that the cash can be used at once for the payment of a special dividend of $100,000, and future profits may be depended upon to take care of the sinking fund as the trust deed provides.

The point is that there is nothing sacred about the appropriated surplus. It can be encroached upon, provided there is no danger that such action will in itself endanger the sinking fund. If future profits were not sufficient to provide the required contributions to the sinking fund, the deficit would not have been caused by the use made of the unexpected cash, but would have occurred in any event.

If this reasoning is agreed to, there is another encroachment upon the appropriated surplus that must also be allowed. Suppose that no unexpected cash is obtained, but that in regular course the sinking fund and the appropriated surplus have reached $250,000, and the directors realize that it is useless to carry so large an item in the surplus account where it is unavailable. They therefore declare a stock dividend of fifty per cent., raise the capital stock to $750,000 and completely wipe out the appropriated surplus. Again, no one can object, because no one is harmed.

What, then, is the use of the division of the surplus account between appropriated and free? There is only one reason for it. It explains to the stockholder why he cannot receive cash dividends commensurate with the large surplus appearing on the balance-sheet. That is a financial and not a legal or an accounting inhibition, and only financial considerations must govern the treatment of the subject. If the appropriated surplus is partly or entirely wiped out, the accounting has helped to simplify the explanation of the financial situation.

There is one occasion when some notice must be taken of the appropriation of the proceeds of profits to the sinking fund as an accounting necessity. This occurs when the actual contributions to the sinking fund are less than those required by the trust deed, although the profits have been ample to cover the requirements. This deficit is a liability that affects not only the free surplus, but the active assets as well. It should be included among the active liabilities as a debt due at once. Merely to show appropriated surplus as that much larger than the sinking fund will call attention to the fact, but will not show the amount as a current liability. It may be shown in a foot-note, but that is not at all satisfactory. It can probably be shown best as an addition to the sinking fund, thus:

Sinking fund bonds	140,000	
Unpaid instalment due	10,000	150,000

with an item among the current liabilities of sinking fund instalment due 10,000, the entries to be reversed when the contribution is made.

A strange part of this whole subject is that no attention is paid by accountants to any appropriation of profits other than that involved in the establishment of a sinking fund. If a company without any bonds outstanding has used a very large amount of the funds provided out of profits to build additional plant it would have a large surplus which it would be financially unable to use for dividends. Yet in such circumstances no one seems to think that it is necessary to notify the stockholders by dividing the surplus. Why the stockholders should understand one condition better than they could the other is hard to see. Yet the only difference is that in one case the appropriation of the funds is voluntary and in the other is compulsory. As far as the ability to pay dividends is concerned the situations are identical.

Amortizing Serial Bonds

Editor, Students' Department:

Sir: $1,000,000.00 serial bonds issued to be retired over a period of five years, interest rate 5%. It is desired to retire an amount of principal each year that added to the interest due will equalize the total amount (principal plus interest) over the entire period. In other words, the amount paid each year for both purposes will be neither greater nor less than that paid during any other year.

Will you please inform me as to some simple method of calculation by which these results may be obtained? Yours very truly,

R. S. H.

The $1,000,000 is the present value of an annuity of unknown payments at 5 per cent. Assuming that the reduction of principal is made annually and coincides with the interest dates, the computation would be:

Present value of annuity of $1 at 5% for 5 periods is $4.329477

Then

$1,000,000 ÷ 4.329477 is $230,974.78, the annual payment.

If no table of present values is available and the regular formula is not remembered, the present value of the annuity can easily be calculated by finding the present value of $1 for each successive year, thus

1.000000	÷	1.05	=	.952381
.952381	÷	1.05	=	.907029
.907029	÷	1.05	=	.863838
.863838	÷	1.05	=	.822703
.822703	÷	.105	=	.783527
				4.329478

The proof of this is shown by the following table:

Year	Payment	Interest paid	Bonds paid	Balance
				1,000,000.00
1	230,974.78	50,000.00	180,974.78	819,025.22
2	230,974.78	40,951.26	190,023.52	629,001.70
3	230,974.78	31,450.09	199,524.69	429,477.01
4	230,974.78	21,473.85	209,500.93	219,976.08
5	230,974.78	10,998.80	219,975.98	.10
	1,154,873.90	154,874.00	999,999.90	

The discrepancy is owing, of course, to dropping fractions of one cent.

Practically this theoretical treatment cannot be followed out exactly, because there are no such odd amounts in the bonds to be paid. It would be necessary to raise or lower the annual payments so as to allow of the redemption of an even $1,000 or $500, if bonds are issued for the smaller amount. This would make a slight difference in the interest, but it would not be important.

The theory of this and kindred problems is discussed in *Accountancy of Investment,* by Sprague and Perrine.

Life Insurance Policy as an Asset

Editor, Students' Department:

Sir: In your issue of April, 1918, you answered an inquiry from Mr. Wheeler in reference to the principles involved in carrying an insurance policy as an asset on a balance-sheet. Your reply indicated that the cash surrender value of the policy should be set up on the balance-sheet under current assets, and that the difference between this item and the premiums paid should be charged as an expense.

We have recently noted a balance-sheet wherein the entire amount of the insurance premium for several years has been carried as an asset account and nothing charged to expense. The policies were ordinary life insurance policies made out to the corporation, and they were carried in the balance-sheet under the heading "deferred assets." Kindly give me your opinion with reference to this practice. H. E. C.

There are two objections to carrying as an asset the total of premiums paid on an ordinary life insurance issued on the life of an officer of a corporation.

One is that in that form of policy the insurance feature predominates. The result is that the cash value is very small, and if the insured lives long enough the premiums will amount to more than the face of the policy. At no time is the policy worth what it is carried for, unless it becomes a claim by the death of the insured.

The other objection is that it presupposes the continuance of the policy until the death of the officer, which can by no means be taken for granted.

The officer may resign or be discharged. If this happens, the company must give up the policy, since it no longer has an insurable interest in the officers' life. All that the company can realize on the policy will be its cash surrender value at the end of the year for which it has paid the premium. It is not necessary to surrender the policy to the insurance company, if the officer wishes to continue it for the benefit of his estate and is willing to pay the cash surrender value to have it transferred to him.

Or the company may fail, in which case the receiver must collect the cash surrender value either from the insurance company or from the officer.

If either of these contingencies happens, the overvalued asset would have to be written down. In the meantime, the accounts would be illogical, because they include an asset at a speculative value, and also because they represent the company as insuring an expensive risk without paying anything for it.

The classification of the asset of "life insurance policy" should be as an investment, rather than as a deferred asset, or as a current asset, as we formerly stated.

Errors in Posting and in Trial Balance

Editor, Students' Department:

Sir: If the following questions possess sufficient merit, I would like to see them discussed in The Journal of Accountancy:

1. After closing the books of original entry for the month and posting the entries to the ledger you find you posted a payment to cash purchases instead of accounts payable.
2. How should one proceed to detect an error in a trial balance?
3. What is the advantage of having the cash account in the ledger?

Yours very truly,

New York. S. G.

1. If the posting referred to was that of a single item posted separately, it can be corrected by ruling out the amount in cash purchases account on the ledger with red ink and then making the proper posting to accounts payable.

If the cashbook has columns for cash purchases and accounts payable and the item in question has been entered in the wrong column, the correction must be by journal entry, debiting accounts payable, and crediting cash purchases.

2. There is only one infallible way to detect an error in a trial balance. Divide the ledger into sections: if bound, each section may consist of 50 or 100 pages; if loose-leaf and alphabetical, each letter may be taken as a section. On analysis paper, head columns with the page numbers or letters representing the different sections. From the books of original entry post each item to its proper column. Bringing the results together you will have all the debits and all the credits for each section for the month. From the trial balance at the beginning of the month ascertain the total debit balances of each section, to which add the month's debits for that section. Do the same with the credits. The difference between these debit and credit totals should be the same as between the two sides of the trial balance for that section at the end of the month. In this way all sections in which there are no errors will be eliminated. The sections that do not prove may be carefully checked or may be again blocked into sections of a very few pages each.

3. There is no special advantage in having a cash account on the ledger, except to make the ledger complete in itself.

Stock Dividend—or Bonus

Editor, Students' Department:

Sir: I am employed by a corporation which at the present time is developing an aero-cruiser for commercial air traffic. The company has a capital of $1,000,000, par value $50 a share. Stock is selling for $100.

Here is an outline of what the company proposes to do. Sell enough stock to build and test first machine, which will cost about $400,000. After the test of this machine has proved successful, additional capital will be required to open up a commercial air route to all important cities in this and foreign countries. The increase will possibly be first to $50,000,000 and the par value will be increased from $50 to $100. All stockholders will surrender their certificates after the increased capitalization has been formulated and for every share surrendered will be given twenty-four additional or a total of twenty-five shares, the balance to remain in the

treasury to be sold for additional working capital to finance the company. This then would mean a stock dividend to all stockholders of 2400%. Under the first paragraph I have shown the entries as follows:

Charge subscription account	$100	
Credit unissued stock		$50
Stock premium account		50

Is this method correct? Would the division of stock (provided each stockholder is given an additional twenty-four shares) be considered a profit and be subject to federal income taxes?

The present company is incorporated to develop and test a machine and, after it has proved satisfactory, additional capital will be required to open up a commercial air route, as the original capital of this company is to be used only for a test machine.

Will you kindly give me all the information you can consistently give in regard to the above questions?

Thanking you in advance for this favor, I beg to remain

Yours very truly,

St. Louis, Missouri. L. W. C.

Your entry for the original subscription to the stock is correct, but you are wrong in saying that the giving of 25 shares for one at the re-organization is a stock dividend. It is not a dividend of any kind.

Let us assume that 5,000 shares of the old stock are paid for at $100 each. There would then be a credit of $250,000 to capital stock and an equal credit of $250,000 to stock premium. The experiments are all successful and the company proceeds to issue the new stock to its present stockholders at 25 for 1. It will be necessary to make this entry:

Capital stock, for old shares surrendered	250,000	
Premium on stock, for premium on above	250,000	
?	12,000,000	
Capital stock, new issue		12,500,000

It is understood that 25 shares of new stock with a par of $100 are to be given for one share of old stock with a par of $50 and a premium of $50.

The question is: To what account is the $12,000,000 item to be charged? It is not goodwill, because that is something that is the result of an established and successful business. Nothing is said about any patents, franchises or any other asset of that character. As the matter stands, there is only one name for the account, and that is "discount on stock." There would be a plausible excuse for calling it "bonus to experimental stockholders," on the ground that they stood behind a proposition that had a 1 to 25 chance of succeeding, and were entitled to the reward of their daring. In any event the item is not a profit or a dividend from profits, and would not seem to be taxable as income. However, the internal revenue department may rule otherwise.

Correspondence

"Some Phases of Capital Stock"

Editor, The Journal of Accountancy:

SIR: I would like to make a few comments through your correspondence section on the discussion in the *Students' Department* of THE JOURNAL OF ACCOUNTANCY for October, 1919, of the writer's articles, *Some Phases of Capital Stock* and *Transactions Between Partner and Firm*, appearing in the May and July, 1919, issues, respectively, of the JOURNAL.

DISCOUNT ON CAPITAL STOCK

The writer freely admits that it is not a particularly vicious accounting practice to eliminate stock discounts by means of charges to accumulated earnings. Further, the balance-sheet is of course ideally a statement of financial position (although it is not at all true even ideally that "it tells nothing whatever of past history except the results") and may not show in a single account the total of earnings not paid as dividends; for surplus may be transferred to various "reserve" accounts or be carried to the capital stock account by either of two methods, (1) the stock dividend, or (2) the elimination of any stock discounts or organization deficits. Still, if discounts were retained (even though shown as deductions from formal capital on the liability side) it might yet be true that the balance-sheet would present a more significant picture to the manager or investor in much the same way as does (so it is sometimes said) the retention of the costs of fixed assets in use in the balance sheet, offset by allowances for accrued depreciation, show the situation more clearly than the presentation of net values. In any case the point is no doubt a minor and not a fundamental matter of balance-sheet construction.

The editor of the *Students' Department,* however, goes a bit too far in trying to find a reason for the writing off of discounts when he states that the perpetuation of stock discounts beyond the time when such items might have been eliminated by charges to undivided profits has a bearing upon the liability of the stockholder at time of liquidation. Would any court decide that a mere bookkeeping procedure, the combination of the discount and surplus accounts, had an influence in determining the liability of a stockholder to the creditors? Although court decisions are sometimes based on very flimsy foundations, I do not believe that any court would so decide. If surplus to exceed the discount were once accumulated this fact of earnings invested in the business could easily be determined and would certainly in no wise be affected by the bookkeeping treatment of discounts. The significant thing in the case cited in the *Students' Department* is evidently the fact that the surplus "was a real one," not that the discount had been charged off. The idea that the bookkeeping treatment of discounts—whichever method is used in no way affecting the

periodic statement of net proprietorship—determines in certain cases the liability of stockholders to creditors is ridiculous. Further, the point in any case has no reference to any but insolvent companies, and it is usually agreed that general statements of accounting procedure are intended to apply to the normal, healthy enterprise.

Transactions Between Partner and Firm

No one, of course, is reluctant to "acknowledge that a man may act in a dual capacity." An individual may act in a dozen capacities, in business as elsewhere. The accountant cannot always afford, however, to proceed as if each capacity were represented by an independent person for accounting purposes. He must sometimes recognize that "all roads lead to Rome."

In the unlimited partnership the law recognizes that for the purpose of satisfying the creditors there is no essential distinction between the assets of the firm and other property of the partners. From the point of view of the creditors, accordingly, the typical partnership balance-sheet is a somewhat nominal statement. The accountant assumes a business entity, although the law does not, and prepares the statements from this standpoint; but the point is still well taken that in certain cases this assumed entity must be ignored and the partner as a partner be identified with the partner as an outsider.

In fact the only case in which the accountant can stick safely to the "dual capacity" proposition is the open corporation. Although the law endows every corporation with an entity apart and distinct from the personnel of its members it has long been recognized by the courts that this entity must often be brushed aside to get at the real facts; and the accountant must sometimes do likewise. A rather extreme illustration will serve to make this point emphatic. In a certain corporation ninety-eight per cent. of the capital stock is held by one individual, the president. In regard to methods of disposing of its profits this company has had a checkered history. For several years profits were turned over to the president as "salary"; for a few years regular dividends were declared and paid; in recent years there have been no dividends but the president has "borrowed" a couple of millions from the business, and accounts receivable have been charged with this amount. Now if the corporation in this case is to be viewed as a distinct entity for accounting purposes, and the president as simply an individual borrowing the corporate funds, it appears that the company's invested capital has not been impaired. The income tax unit, however, would ignore the corporate entity in such a case and view this company as essentially a sole-proprietorship. The charges to accounts receivable covering the president's borrowings would be thrown out of invested capital and treated simply as proprietary drawings. And this is, of course, the common-sense way to handle the case.

Similarly, the salaries of officers in close corporations are bona fide expenses if we adopt the view that these officers as employees are entirely distinct and apart from these officers as proprietors. They are hired by the corporation, it may be urged, just as is any outsider, and their salaries

are therefore expenses. The common-sense view in family corporations is that these officers virtually engage themselves. And here again we find the treasury department taking the attitude that the test as to whether such salaries are expenses or in whole or in part profit distributions is reasonableness. In other words the department refuses to be beguiled by the proposition that the stockholder as an employee is entirely distinct from the stockholder as a proprietor controlling corporate policies. The dual functions are recognized, but not the dual business personalities.

"Common sense is not recognized as a guide by some accountants," as the editor of the *Students' Department* points out, but he has tagged the wrong bunch with this label. The accountant who does not recognize common sense as a guide is the man who meticulously follows the two personalities, the proprietor as an employee or borrower and the proprietor as an owner, and insists on maintaining this differentiation in all cases, regardless of the absurdities this practice may lead to in the case of the partnership and the close corporation. Statements of financial operation and condition prepared according to this view will in many cases certainly not be accepted by the courts or the treasury department.

The editor of the *Students' Department* makes one criticism which is evidently due to an oversight. In speaking of the case where B does not pay interest on his drawings but authorizes a charge to his capital account he quotes from the article in question as follows:

"'The concurrent credit in such a case is usually to the interest revenue account, and if this procedure is followed the entries giving effect to this agreement would be:

B, Capital	$600	
Interest		$600

"'The credit to interest is ostensibly a revenue item, but a careful examination of the case discloses the fact that no revenue whatever was involved and that the essence of this transaction is simply an adjustment between the two partners. This can perhaps be best shown by an examination of hypothetical balance-sheets *as affected by this transaction alone.*'" The first balance-sheet is then given and the quotation continues,

"'*Ignoring all other possible transactions,* and assuming that A and B share income in proportion to respective investments, the item of interest revenue recognized in the above entries might now be divided and credited to the partners' capital accounts.'"

Here follow the entries and the succeeding balance-sheet, and then the conclusion,

"'A comparison of the two balance-sheets shows very clearly that no revenue whatever has been realized since asset and equity totals remain unchanged . . . .'"

In criticism of this demonstration the editor states that "it cannot be too strongly emphasized that a comparison of two balance-sheets does not show anything whatever in regard to intermediate profit or loss," and goes on to show this by bringing in additional transactions and assuming the

profits resulting therefrom withdrawn. In view of the italicized statements above (the italics were not, of course, in the original article), which the editor himself quotes, it is evident that this criticism is entirely undeserved. The demonstration given was sound. It is certainly true if balance-sheets were struck immediately before and after a single transaction containing an element of net revenue that the totals of the second balance-sheet would be larger than those of the first by the amount of such net revenue.

Yours truly,

W. A. Paton.

Book Reviews

MERCANTILE CREDITS AND COLLECTIONS, by CHARLES A. MEYER, *The MacMillan Co.*, New York.

A manual for the guidance of credit men and collection departments written from the practical experience of the author. "Practical" is the best word to describe the book, as little space is given to theory or psychology. Part I gives advice to the credit man and part II to the collection department, as to the methods the author has found most useful. Part III contains the United States bankruptcy law. An appendix contains the requirements of each state as to conditional sales contracts, a section probably of more value to public accountants than any other part of the book. There is a good index.

The old saw, "tricks in all trades," is somewhat forcibly brought to mind by the reading of chapter VI, *Your Own Collection Agency.* The idea of forming a dummy corporation of your own for the purpose of scaring the debtor into paying by carrying out the threat of putting his account into the hands of a collection agency may be pretty well known in business circles, but it is astonishing to find the scheme recommended in so public a form. It will also be unpleasing news perhaps to a victim of this mild form of deceit to learn that it is even possible that he has contributed indirectly to help swell the profits of his creditor through the dummy corporation's share of the collection fees. Of course, no honest debtor should ever find himself subject to this peculiar form of mulcting, and equally of course there is no law to prevent it, but nevertheless this whole chapter has an unpleasant ring. W. H. L.

HOW TO ANALYZE INDUSTRIAL SECURITIES, by CLINTON COLLVER, *Moody's Investors Service.* New York.

Such a competent little handbook as *How to Analyze Industrial Securities* if widely distributed among investors would increase public demand for high standards of analytical ability on the part of public accountants. The day is coming when stockholders and investors will insist upon reading not only the auditor's certificate but his entire report. What this will mean in increased responsibility for the public accountant is obvious. It will call for the exercise of such keen observation, sound judgment and severe logical reasoning that one foresees a long and arduous apprenticeship for the future aspirant to the front ranks of the profession.

We confess that we took up this book of Mr. Collver's in a somewhat flippant frame of mind. We have seen too many of the "how-to-get-rich-quick-on-Wall-St." type of booklet. After reading with particular interest

parts IV and V, however, we "remain to pray"—that some happy day in the future may see the elimination of the unflattering opening of chapter XVI—

> "Too much reliance has been placed upon the indorsement of public accountants of income accounts and balance-sheets,"

and further—

> "Two of the largest firms, whose certificates are found on many large corporations' reports, do not enjoy a good reputation among accountants."

A bit of qualifying consolation is found in the next sentence—

> "On the other hand the writer has been employed by two of the largest firms in the country whose standing is above suspicion."

Quis custodiet custodies? If the public is warned not to place too much reliance upon our certificates, whom may it rely upon? What is more to the point, whose fault is it? We take it that Mr. Collver means not to impute moral turpitude (a matter with which the American Institute of Accountants is amply able to deal) so much as lack of training and ability. And that is most emphatically a matter for the serious consideration of every member of the profession.

Though modern accountancy writers touch more or less upon the importance of good analyses of accounts, we do not know of anyone who goes into it so thoroughly and practically as Mr. Collver. We think this book—handy for the pocket, concisely and clearly written, well indexed—a most useful addition to any accountant's library, and particularly adapted as a manual for juniors with ambition. W. H. L.

Harry Ambs

We announce with regret the death of Harry Ambs, associate of the American Institute of Accountants, who died at his home in Brooklyn, December 4th. Mr. Ambs had been on the staff of Price, Waterhouse & Co. for many years.

Henry F. Moore and Charles J. Booth announce the formation of a firm under the name of Moore & Booth, with offices in New York building, Seattle, Washington.

Ward, Fisher, Carpenter & Philbrick announce the opening of an office at 8 Beacon street, Boston, Massachusetts.

Frank Ralph Wheeler announces the opening of an office at 722-3 Stephen Girard building, Philadelphia.

Temple, Webb & Co., announce the removal of their St. Paul office to the Capital National Bank building.

Hood & Strong announce the removal of their offices to Newhall building, San Francisco, California.

Bertram Goldsmith announces the opening of an office at 200 Fifth avenue, New York.